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Clinical Lectures.

TRACHEOTOMY IN AN ADULT — FRACTURE OF THE SKULL—GUNSHOT WOUND OF THE CHEST—STRANGULATED INDIRECT INGUINAL HERNIA.

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TRACHEOTOMY IN AN ADULT.

Gentlemen:—The first case that I will exhibit this afternoon is one which illustrates the difficulties often attendant upon the performance of tracheotomy in an adult. In this instance, as you see, the patient deliberately cut his throat with a knife, the instrument passing horizontally across the neck immediately above the upper margin of the larynx, dividing the epiglottis and penetrating as far posteriorly as the anterior wall of the œsophagus. When he was brought to the hospital he had lost a considerable quantity of blood and was breathing with more or less difficulty through the opening made in the neck by the knife.

As there was marked dyspœa npresent, with evident congestion and œdema of the sub-mucus tissues of the glottis that threatened suffocation, it was found necessary to perform a prophylactic tracheotomy, but owing to the severance of the muscles which connect the thyroid bone with the larynx, there was a wide separation of the tissues, resulting in the collapse of the trachea and elevation of the hyoid bone through want of action of its antagonists in the opposite direction downwards. Hence, the difficulties that lay in the way of exposing the trachea and inserting a tube.

It is well to remember that normally in a child up to the fourth or fifth year, the rima glottidis is on a level with the intervertebral disc of the third and fourth cervical vertebræ, but after adult age is reached it has sunk to a level with the fifth intervertebral cartilage, so that while in early childhood the aperture of the glottis may be readily defined with the index finger passed through the angle of the mouth, after adult age, this is impossible, as it lies not only further down, but further forward, and is accordingly difficult to reach. The trachea is normally deeper in the adult than in the child. From the inner surface of the intervertebral notch the tracheal rings are separated for a distance of fully an inch and a-half, which space is occupied by the thyroid body, muscular and cellular tissues and the integument, all of which are exceedingly vascular.

In the case of this patient before it was possible to expose the trachea, it was found necessary to forcibly lift it out of the thorax into which it had collapsed. Besides, as a result of the incision through the tissues of the neck, there was an extensive infiltrate through all the parts, both external to and beneath the deep cervical fascia, so that the distance from the surface of the integument to the trachea was nearly three inches.

Under these circumstances, there are many difficulties in the way of performing a tracheotomy, which, if you are prepared to meet, might cause you no small amount of trouble. The first difficulties lay in the fact, that as we seldom or never tracheotomize except when the patient is suffering from stenosis of the larynx or air passages in some part of their course, the administration of an anæsthetic often becomes an impossibility as the inflamed condition of the mucus membrane of the air passages occasions such extreme sensitiveness that the inhalation of the anæsthetizing agent is attended with violent coughing spasms, and sometimes the arrest of breathing altogether. Accordingly, in this case, we will employ a method which may be described as the Reclus-Dawson plan of performing tracheotomy, that is, to cocainize the parts by the use, hypodermically, of a

one per cent. solution of the hydrochlorate of cocaine, using about a hundred drops of this solution both in superficial and deep injections, as laid down by Reclus in the use of this anæsthetic in surgical procedures. The next step in the operation is to make the trachea dry and free from blood, as recommended by Prof. Dawson, of Cincinnati. This is done by compressing all the bleeding parts by means of forcep pressure clamps, as each layer of tissue is exposed until the bare trachea is reached. Two great dangers are eliminated by this procedure, first of which is the danger of the escape of blood into the trachea, and the second is our ability to now dispense with a general anæsthetic.

Dr. Manley proceeded to perform the operation according to the plans here advised and no difficulty whatever was encountered in exposing the parts; during which time, the patient appeared to be perfectly free from pain or inconvenience. When the trachea was opened and the tube introduced the respirations were carried on with a marked freedom from oppression or distress.

FRACTURE OF THE SKULL.

The second patient is that of a boy, nine years old, who was brought to the hospital eight days ago suffering from a fracture of the skull sustained by falling from a height of forty feet into the back yard of the house in which he lived. When brought to the hospital by the ambulance surgeon he was in a state of most profound collapse. The integument was cool, the pulse irregular, slow and thready, and he breathed in a sort of spasmodic gasp. On entering the hospital he was placed in bed, hot applications made to the extremities, and after the lapse of some six hours, re-action gradually became established and consciousness returned. At this time I saw him and on examination found a well-marked depression of the skull in the tempero-parietal region just above the right ear anteriorly. Associated with this was an extensive infiltration of blood into the subconjunctival tissues of both eyes and a copious hæmorrhage from the nose, which latter had, however, largely ceased when he came under my observation. In other words, there were definite and positive indications of depression of the cranial bone at the seat of injury, besides fracture of the anterior fossa of the base of the skull. No paralysis had developed or convulsions of any sort, and apart from the general shock that he had suffered, his condition was fairly good. Now the question comes up, what line of treatment is proper to follow in conditions of this description; in children in whom, we have evidences of fracture of the cranial bones; but in which, there are no objective symptoms of extensive cerebral hæmorrhage or destruction of cerebral tissue? I have been taught from practical experience to follow an extremely conservative course, in such cases and one, from which I have made it a rule to never deviate; that is, to leave alone, unless indications for interference are clear. I have found, in operating on the crania of children, that the cranial bones and peri-cranial tissues are extremely vascular, and despite any precaution that you may take to prevent it, considerable blood is lost before the membranes of the brain are exposed. A condition usually, very badly borne, by a growing child and one apt to result in very serious consequences. Furthermore, the meninges of the brain and the cerebral tissues of a child are very susceptible to the irritating action of atmospheric influences, antiseptic solutions, or digital manipulation. In the majority of cases of children, where I had found it necessary, to open the dura-mater, for fractures or suspected fractures of the skull, traumatic meningitis developed, and in spite of every effort that could be brought to avert it, it generally ended fatally. It is for this reason I have always deemed it safer to pursue the conservative course in traumatisms of the skull in young children.

The ecchymosis beneath the serous tissues of the eyeball has already, nearly undergone complete absorption and the boy's general condition is excellent.

GUNSHOT WOUND OF THE CHEST.

The third patient that I will show you is a young man of powerful physique, who sustained during a quarrel, a gunshot wound of the chest. The ball penetrated the right pleural cavity an inch and a half to the right of, and about one inch below the nipple of the right breast, taking a downward and backward direction.

After admission to the hospital, the patient complained of a persistent pain in the abdomen and an extreme sensitive or moderate pressure over all its areas from the pubic bones up on either side.

Physical examination revealed no positive evidences of effusion into the right pleural cavity, but on the third day of his admission the pain gradually spread from the umbilicus upward, and it was then evident that he was suffering from a pleurisy, probably induced by the escape of blood from the lung into

the pleural cavity, which excited a hypersecretion of the serous membrane of the pleura. Now, septic infection had developed, and this was a positive impossibility to prevent in cases of penetrating wounds of the lung, whether done by an instrument or by a bullet, no matter how you may treat the external wound.

Accordingly, the indications for treatment are generally clear. If we are to give our patient the best chance of recovery, we should make a free incision through the walls of the thorax, either over the point of entrance of the bullet, or at its most dependent part, and remove whatever purulent or extravasated accumulations, or other matters that may have been carried in by the missile. Then, thoroughly irrigate and drain the pleural cavity, and apply the dressings so that future drainage and irrigation can be kept up until a cure has been brought about.

The operator then directed the patient to be turned on his left side, and after the integument had been carefully cleansed and rendered thoroughly aseptic, an incision was made into the nineth intercostal space, the scalpel taking a downward and forward direction. After the pleura was exposed, it was divided, and with a sharp rongeur, the greater portion of the shaft of the nineth rib for a distance of about a half an inch immediately over the incision, was exsected. This gave vent to a very large discharge of a sero-sanguinilant fluid, mixed with flocculi of lymph, tinged a deep-yellow bile color, thereby clearly indicating the fact that the bullet must have taken a downward direction, passing from the diaphragm into the liver, and possibly into the peritoneal cavity; otherwise, it would be difficult, to account for this backward flow of the bile through the diaphragm into the pleural cavity. Under these circumstances, the prognosis would be very bad, because, without doubt, the peritoneal cavity had been opened by the missile and septic infection had already commenced. The beneficial effects of the operation would be then local in its action and would be confined to the function of respiration alone. If the bullet had not, however, passed through the liver but was encapsulated and if a purulent formation should develop, his chances of recovery were best secured through the backward vent for this accumulation up through the diaphragm and out through the intercostal opening.

Two drainage tubes were then introduced through the opening made by the rongeur in the rib, and antiseptic dressing applied. The patient rallied well from the ether and expressed himself greatly relieved when consciousness had returned.

STRANGULATED INDIRECT INGUINAL HERNIA.

The next patient presents a few features of considerable interest in his history. He is a colored man, 40 years of age, and has suffered from hernia as long as he can remember, though it has not been of very large size. He has been able to get along very comfortably by the use of a truss until about two years ago, when he developed a strangulation of the intestine which he was not able to restore as formerly. A physician was called in who, by the use of topical applications and moderate taxis, succeeded in replacing the bowel. From that time on he wore a truss continuously until about two days previous to his admission to the Hospital when one morning he neglected to put it on, on going to work. While engaged in lifting a heavy load he felt something give way in the neighborhood of his groins which at once attracted his attention. He noticed a very large lump occupying that part of the body, and this was soon followed by extreme pain in the back, persistent vomiting and great weakness. He tried in vain to reduce it working at it for over an hour until at last a physician was sent for.

When the patient was brought to the Hospital, the house-surgeon employed as much taxis as he considered within the limits of safety to the patient, giving him a hypodermic injection of morphia, applying ice-bags over the protrusion, elevating the pelvis, and making continuous pressure over the hernia, but all to no purpose. Now, the strange feature of the case came up, and it was not peculiar to this case alone; for I have seen it occur four times, at this Hospital within the last six years; and that was, notwithstanding all that the house-surgeon could do to reduce the hernia, when the patient went to sleep, the protrusion gradually returned to the peritoneal cavity of its own accord. So when the doctor was making his evening rounds of the ward, when the patient awoke from his sleep, he found that the hernial protrusion had spontaneously disappeared.

The operation which I shall now undertake is not done with the view of curing the hernia, for no operation that has been yet devised can bring about that result, but for the purpose of placing the hernia in a posi-

tion in which it can be comfortably controlled by a properly adjusted truss. My experience has led me to perform no hernial operations, except in uncontrollable, painful and strangulated cases where surgical intervention is justified in order that it may be more easily and safely controlled in the future, by means of pressure. With regard to the form of operation I shall employ in this case, I would say, that there is no particular variety of operation that is applicable to all kinds of hernia. There were some operations in which a division of the canal, liberation and enucleation of the sac were performed, but then these were hernias which had no sac, as, for instance, the congenital variety, or a hernia which bursts through the peritoneum and comes down through the divided slit without any peritoneal investments. In other cases, the inguinal canal could not be divided because there was no canal in such cases; as for instance in a case of direct inguinal hernia where the protrusion carried the conjoined tendon down with it instead of the intercolumnar fascia. In those large, old protrusions, in which by the size of the hernia and the gradual distending force of its walls, the inguinal rings approximate and no inguinal canal is found to exist.

As for doing the open method or the closed one, in this case I shall be wholly guided by the circumstances as I shall find them. If the case is a recent one of strangulation and there were extensive accumulation of foul, fœtial secretions and danger of infection of the peritoneum, then I would by all means, treat the patient by the open plan, as it affords freer and fuller exit to the septic material.

But, if on the other hand, the process consisted in replacing the protrusion, closing in the inguinal rings and affecting a temporary cure, with such restoration of the parts as would render the ultimate wearing of a truss a comfortable procedure, I would then sew up the primary incision from end to end, taking care only to secure a homologeous approximation of the different coverings of the hernia from the serous membrane to the integument. I should employ no drainage except a small twist of cat-gut at each end of the wound.

The patient having been placed under the influence of ether and the parts shaved and cleansed, first with soap and water and then with a bichloride solution of 1–2000, the operation was commenced by making a free incision over the seat of the hernia, beginning over the center of the external ring and bringing it down to within about an inch of the base of the scrotum. The parts were then freely and rapidly divided and the sac exposed. This was then opened after it had been completely freed from the elements of the cord and it was found to contain a large serous effusion, about six inches of the small intestine, the whole of the appendix vermiformis, and but a slight fringe of omentum. In the large majority of cases of inguinal hernia it is important to bear in mind this fact that the segment of intestine which comes down will be almost invariably found to be that part of the ileum which terminates in the caput coli. After the intestine had been returned to its proper position in the abdominal cavity the parts were then freely irrigated with a 1–10,000 solution of bichloride of mercury, the sac was put upon a stretch, twisted at its neck and ligated high up with a strong silk ligature. It was then divided below the point of ligation and the divided neck of the sac was permitted to retract into the abdominal cavity. The widely separated pillars of the external rings were next drawn together by two strong sutures, and the parts below having been thoroughly irrigated, were approximated layer by layer; the cutaneous incision sewed up from end to end, with no drainage, except at the scrotal end where a small drainage tube was inserted. Iodoform and biclhoride gauze dressings were now applied over the wound and the patient was returned to the ward.

TREATMENT OF FLATULENCE.

Flatulence is a trouble that sometimes defies medical treatment. A French journal recommends the following:

℞

Naphthol	ʒij.
Carbonate of magnesium	ʒj.
Powdered charcoal	ʒj.
Essence of peppermint	gtt. ij.

This is to be divided into fifteen powders, and one taken at the beginning of each meal.

When the flatulence is accompanied by constipation the following may be used:

℞

Magnesium sulphate	ʒj.
Flowers of sulphur	ʒj.

To be made into fifteen powders, one of which is to be taken at each meal.

When diarrhœa accompanies the flatulency:

℞

Bicarbonate of sodium	grs. xxx.
Prepared chalk	grs. xv.
Powdered nux vomica	grs. iij.

May be made into ten powders, one of which is given with each meal.

—*Pharmaceutical Record.*

TRAUMATIC MENINGITIS; FRIEDERICHS ATAXIA IN A CHILD.

BY DR. J. MADISON TAYLOR,

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Gentlemen:—I have asked the mother of this little child to come and show it to you. They came in my office just as I was leaving. It seemed to me of interest that you should see a well marked case of recovery after a pretty bad traumatic meningitis. This child applied to me to-day for some triviality, but in the main, as you see, it is very well and strong, thoroughly well grown and nourished; in fact, it is a singularly muscular girl. The history of her trouble is as follows: When seven weeks old the mother had left her in the house with an older child, in her absence. When she came back, shortly thereafter, the little one had evidently been shaken or cuffed by the older child, because she was found in the very act of doing so. What injury the little one received it is impossible to know. She certainly was very much knocked about, the mother thinks thrown several times against the floor. The child who did this had notably a very bad temper, and the injury might have been even greater than could be known. Certainly the back of this one's head was very much bruised and battered, and she was completely black in the face, shocked, and reduced to a condition of almost palsy. From that time until several months old she was in a miserable sickly condition, ailing all the time, and upon the slightest provocation rejected all food unchanged. The mother nursed her, hence she got the best of nourishment; but, as I say, her condition was wretched until about fourteen months of age. When I first saw the case it had evidently a very high fever, and was exceedingly painful to handle. There was no part which could be touched without making it cry out, and hence after a hasty survey I diagnosed rheumatism; but upon my next visit I was enabled to make a more careful study and also learned of this injury described, and then found other evidence that it was manifestly a meningitis. Later the pupils became more pin points, the limbs in constant painful contracture, the abdomen cupped and contracted, the head thrown back in a condition of opisthotonos, the eyes were kept closed, nothing was held on the stomach, not even water, and for ten days she did not sleep nor retain any food. All this while the bowels were obstinately constipated. The temperature I have no record of, but it was extremely high. The pulse slow and hard. The case lasted for about a month and got entirely well. The value of this is not so much simply as a case of typical, traumatic meningitis, as that it should have gotten so well; nor was the treatment used anything especially suggestive,—counter-irritation along the spine and the nape of the neck, hot mustard water, quieting medicines and carefully pre-digested food. But now the real interest centres in what effects are left from a case of this kind, and from such opportunities as these, much may be learned. One rather remarkable thing is that there seems to be no evidence of any malnutrition or lowered health in this child now. The digestion is excellent, general vigor good, and as I remarked before, the muscular development is singularly fine. The child is exceedingly intelligent, a little bit over shrewd perhaps, and with a trifling tendency to be cunning, but one very noticeable feature about it is an easily aroused and violent temper. It is interesting to consider how many subsequent mental peculiarities may be traced to some early brain injury of this or other kinds. I have in my mind the very noticeable instance of a daughter of a prominent literary man, who was herself remarkably clever. She and her sister had, you might say, a continental reputation for cleverness. This gentleman had been diplomat at a foreign court, and there both these daughters shone in various ways. The girl, when I knew her, was about 20 years of age, and insane. There was history of a very fair amount of intellectuality; she had written some clever poems, and was exceedingly interesting personally and in conversation. Nevertheless the mental obliquity was unquestioned, and was regarded by those who had her under advisement as probably most serious. From an accidental circumstance she died suddenly, and it was because of this that I was enabled to make an autopsy. Barring some disturbance of her uterine appendages, there was little amiss except evidences of a slight meningeal thickening, symmetrical in character, which was probably the result of a very severe attack of scarlatina as a child. There were then, I believe, as nearly as the parents could recollect, symptoms which might have been attributed to a meningitis. Afterward the temper of this girl had been notably erratic until it

culminated, as I said, in a condition of mania most distressing.

Now the lesson from these cases is that while of course every effort must be made with absorbents and such like remedies to try and relieve adhesions and thickenings, if indeed that be possible, our chief hope is that something in the way of treatment may be had from thorough and careful mental training so soon as a condition of this kind is recognized.

The next case I have to show you is one of considerable rarity although the total cases reported amount to something over two hundred. This little boy of nine years of age applied first at the Dispensary some weeks before I saw him for an irregularity in his movements which was pronounced chorea. Indeed he was treated systematically for chorea and seemed to improve under it. When I first saw him there were certainly choreic movements in the hands but they were so slow and so irregular that they had not even the irregular regularity which chorea has; and in causing him to walk to and fro on the floor, his gate was so manifestly bad that the possibility of his having some motor ataxia suggested itself, and upon examining him I found the knee jerks entirely gone. There were other symptoms which I shall detail presently which made me think the case one of locomotor ataxia, an exceedingly rare disease in childhood. In fact it is pretty nearly determined, certainly most observers now admit, that it is scarcely possible for a case of true locomotor ataxia, or sclerosis of the posterior columns of the cord, to exist in childhood at all. Of the reported cases, while some few seem to have the regular symptoms of locomotor ataxia, yet are the notes not sufficiently clear to make us certain that they were not what I think this case to be, namely, one of F. Friederich's ataxia. Now I will rapidly go over some of the leading features of this boy's case. I have looked pretty thoroughly into his history which is about as follows: The family records are thoroughly free, so far as I can make out, from any evidence of similar disease. The immediate family consists of seven children, of which he is the fourth, all robust and hearty, of Alsace parentage although born in this country. Until the age of eight years this boy really had no grave illness; he was always strong and well. In June last, however, at which time the mother thinks he was about the plumpest and best favored of her children, the various phenomena which I will detail, commenced to appear. Before that, however, it is well to mention some evidence of there having been ataxic symptoms. For at least a year the child fell too readily while at play; about his nose and face are numerous scars from contusions he then received. In June last there is a rather vague history of a fright caused by some boys who either chased him or did him some bodily harm, actual or possible. There is also some suspicion on the mother's part that he received a severe blow or kick on the end of his spine, but this is not definitely known. Before June, then, there was little or nothing to call attention to him except that he stumbled about irregularly. At that time, however, the clumsiness greatly increased, and was shown chiefly in the hands; he dropped dishes and other things from them. He could scarcely feed himself so great was this disturbance. He was taken to a physician and quite naturally, it would seem, the disorder was pronounced to be chorea, and treated accordingly. In a few weeks this passed entirely away, and also there were other notable phenomena observed, such as the loss of whiteness and gloss to the skin which became muddy and yellowish, the muscles fell away from their customary plumpness, and even now, as you see, are flabby although fairly well developed. There was nothing particularly noticed about his speech which, is observed to be slow and scanning, but his mother assures me that since his earliest capacity for speech he has always spoken slowly and hesitatingly. Also, as you notice, the saliva has a tendency to dripple from his mouth. This is not new nor particularly well marked. Upon examination you will note he is a fairly grown lad, with well nourished body and of good color. His expression is dull, the mouth is held habitually open, and the slight salivary leaking can be seen at the corners of his mouth. His attitude is not alert, the head is thrown forward, and I am told he usually looks upon the ground as he walks, showing clearly a degree of uncertainty in his movements which is characteristic. The skin, is also of a greasy yellow appearance, and upon touch you notice that it is very flabby and loosely attached to the muscles. Examining the spine as we now do there is no irregularity noticed nor is there any tenderness upon pretty vigorous thumping of his back. Examing the coccygeal region there is nothing noticed in the way of an old injury, nor does he complain on pressure or blows there. His heart is distinctly flabby with feeble sounds, and a rough systolic murmur is heard. The pulse is quite rapid and irregular. Now we come to ex-

amine the most noticeable feature, namely, his lack of power to stand. Standing thus before you the poise is quite unsteady. If I bid him bring his feet together, even with his eyes open, there is a notable sway back and forth. When I tell him to shut his eyes at once you observe the sudden reeling forward and to the right. The measurement of this sway is about two inches in each direction. This, in examining ataxics, is called the station, and we describe it as an antero-dextro sway of about two inches in each direction. When he walks you observe that he throws his heel down first and quickly follows it by the ball of the foot, as if he wanted to get as broad a base as possible on which to stand. This is true of ataxics always and gives them the characteristic gait. The foot is thrown forward suddenly and with a tendency to spread itself out as far as possible and thus widen the base. On turning quickly, the toe of one foot almost always touches or strikes the heel of the opposite foot; so much so that if I make him do this rapidly two or three times it will actually cause him to fall. Now upon examination of his legs still further we find the knee jerk entirely gone, the ankle jerk entirely gone, and all the tendon reflexes about the lower limbs have disappeared either directly or upon reinforcement. It is just as well here for me to explain this phenomenon of reinforcement. When the tendon is struck from which you expect to get a reflex, it frequently happens that little or no result is seen, but when you can get the patient coincidently to this to make some decisive muscular act, as the closing of the hand quickly, or even the winking of the two eyes quickly, the motor wave, as we may call it, is increased until the tendon jerk is also enhanced and made more noticeable. Here you see the tendon jerk is utterly gone. Upon examining the arms the biceps tendon is made easily to re-act upon the simple blow, and really to act exaggeratedly upon reinforcement by clenching the other hand; so that although there is distinctly some ataxia in the arms, still the tendon reflexes are present, although the accuracy of the movements of the hand are notably lessened. For instance, you see with his eyes closed if I tell him to touch the tip of his nose quickly with the front finger of either hand, he misses the point by an inch or two each time. Also, even with his eyes open, upon buttoning his coat he fumbles clumsily. There is one other reflex easily noticed in this child, and that is the jaw jerk, rather an important one because we may have a reflex present here and yet those from the lower limbs and upper limbs quite gone. Now then, as to the question of what is called static ataxia, that is the power to hold any part of his body steady under the impulse of the will. For instance, I tell this boy to hold his two hands out in front of him spreading forth the fingers, and you see a decidedly irregular movement in them in strong contrast to that of a healthy boy who could quite easily do this. Upon grasping objects, however, which has also to do with this symptom, there appears to be no special defect.

Again, the muscles of the face twitch irregularly but slowly, showing that the balance of muscular activity is well below par throughout the entire body. Doubtless this feature, irregularity in the movements of the muscles of the face, helped to make the diagnosis of chorea earlier in his history. There is no definite tremor, although tremor is a common feature of this disease, nor is there any spasm, nor palsy, nor contracture. There is also an entire absence of pain now, or at any time. Electrically there is no particular change in his muscles, nor, indeed, is there any characteristic electrical symptoms recorded in this disease. My friend, Dr. Oliver, who has taken great interest in examining the cases of this malady for Dr. Griffiths in the very elaborate and complete study which he made of it, has also kindly given this boy a thorough overhauling, the conclusions of which are as follows: The central vision for both form and color is normal in each eye. The power and range of accommodation are, however, lessened. The visual fluids are very slightly contracted, the pupils are about the same size, the irides equally and freely mobile to light stimulus and convergence, but quite sluggish to accommodative efforts. There are no coarse changes in the intraocular media or fundus. You see we have here just the reverse symptoms from those of the Argyl Robertson pupil, which should re-act less well for light than for accommodative efforts. In short, in this disease there is a much more general disturbance of the muscular activities than there is in the true locomotor ataxia.

Now, of course, in a clinic of this kind it is always interesting to say something as to treatment. I wish it were possible to give any hope that treatment of any kind, shape or degree could be of value here. Unfortunately, since in none of the reported cases has there been any definite improvement except spasmodically and in the way of nutritional gain, yet there has been nothing

found in any way to limit the progress of the disease or to regain lost ground. Such cases usually live a reasonable lifetime in varying degrees of helplessness, but little may be hoped from any line of treatment except such as is directed to the general health.

Very rarely does this disease progress rapidly but not the less surely, and while it is quite common for its victims to die of other causes than it, nevertheless barring any other reason, of this they will infallibly die soon or late. It is quite possible, however, to prolong the existence of these victims, and inasmuch as we are seemingly on the track of new and improved methods of treatment for true locomotor ataxia, so may some of these help us in this trouble. The treatment by suspension, of which so much was hoped, is still pursued in many special hospitals, and my own experience with it has been many times encouraging. Certainly I have seen certain features of locomotor ataxia obviously helped by this.

COMMUNICATIONS.

THE RELATION OF LACERATION OF THE CERVIX TO MALIGNANT DISEASE AND ITS TREATMENT.

BY WILLIAM E. ASHTON, M. D.,
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We will first consider the condition of the neck of the uterus as to the presence of lacerations in women who are suffering with cancer. The fact must not be lost sight of that the vast majority of these women consult the surgeon at a time when their disease is far advanced and when it is impossible to determine whether or not a laceration be present. Therefore we must depend upon the child-bearing history of our patients, for, if a woman has borne children, it is fair to presume that her cervix has been the seat of a more or less extensive traumatism as it is exceedingly rare to find a parous woman with a virgin neck to her uterus.

During a period of eleven years 63 women with cancer, presented themselves at the clinic for diseases of women in the Jefferson Medical College Hospital. The histories of 5 of these patients were incomplete, there being no notes recorded as to child-bearing. Therefore, in considering these statistics, we must necessarily exclude these cases. The remaining 58 women all had borne children with one exception and the diagnosis in this case is far from certain, as no microscopic examination was made, the notes merely stating that she was sent to the ward and curetted.

The following table shows the age and the number of children borne by each woman of the 58 cases of cancer at the Jefferson Medical College Hospital:

Age at admission	23–30	30–40	40–50	50–60	60–67
No. of women for each period...	3	13	16	17	9
Total					58

No. of women...	1	12	5	9	4	5	9	2	2	4	2	1	2
No. of children each	0	1	2	3	4	5	6	7	8	9	10	11	13

Totals:

No. of women	58
No. of children	267

We find by studying this table that the average number of children borne by each woman to be 4.6. This is about the same average as is given by Emmet,[1] who in a report of 51 cases of cancer found in the aggregate 228 children, which gave an average for each woman of 4.47. Hoffmeier, quoted by Winckel, found the average number of deliveries to be 5.2.

The above table shows only 3 cases occurring prior to 30 years and 9 cases after 60 years. Therefore the period between 30 and 60 years would seem to be the most likely time for cancer of the uterus to develop.

Winckel[2] says: "The large majority of women with cancer are married. Of my patients only 1.7 per cent. were unmarried and two-thirds of these 1.7 per cent. had given birth to one or more children. Difficult labors, i. e., protracted or instrumental deliveries, are very frequently part of the history of these cases."

Winckel does not believe that pregnancy and labor alone can be looked upon as causes of cancer of the uterus but that "such a termination is apparent after numerous and difficult labors." In other words, labors which produce lacerations of the cervix are liable to cause cancer. Hoffmeirer, quoted by Winckel, found in 812 women suffering with cancer only 4.8 per cent who were nulliparæ. Gross[3] says: "Epithelioma of the uterus is most common in married females that have borne children. Goodell (Lessons in Gynæcology 1887) tells us that "of several hundred cases of cervical cancer brought to my attention, I have not met with a single

[1] Principles and Practices of Gynæcology p. 511.
[2] Winckel's Diseases of Women-Parvin, 1889.
[3] System of Surgery vol. ii. p. 891.

one in a virgin, and only two cases in undoubtedly sterile women. One of these two, however, although an exception to the rule, singularly confirmed it. The lady had a fibroid tumor which slowly enucleated itself. After she had suffered much pain and had lost blood for several weeks. I was called in and found the os uteri dilated to the size of a silver dollar. I easily wrenched the fibroid from its attachment, and delivered it, but with some difficulty, as it was larger than the os. A few months later cancer of the cervix set in, from which she died."

It is not necessary to bring forward other statistics showing that a large per cent. of women who have cancer of the uterus, have borne children and I will therefore not take up further space in stating facts about which there is a united professional opinion. The point, however, which I do desire to bring forward is that labor means more or less traumatism of the neck of the uterus. If this be true, and I firmly believe it to be so, we then have by knowing the child-bearing history of a woman suffering from cancer a strong presumptive evidence of the presence or absence of a laceration of the cervix uteri.

Having shown that it is the exception to meet with cancer of the uterus in a nulliparous woman we will consider the question, does a laceration of the cervix predispose to or cause malignant degeneration? The etiology of malignant growths is still unfortunately far from settled, as the various theories which have been from time to time advanced but too clearly prove. To my mind, however, the local inflammatory theory of Virchow is the one most fully sustained by clinical facts and by the concensus of professional opinion. I shall, therefore, in this paper, limit myself to the views of Virchow leaving out of the question the dyscrasia, nervous and spontaneous theories. Neither shall I refer to the view that abnormal growths are due to micro-organisms as this theory is at the present time far from being demonstrated. Furthermore even granting that pathogenic forms of protozoa are the cause of new formations it would in no wise weaken the view as to their local origin, for the micro-organisms would simply be the exciting, not the predisposing, cause. Formad[1] in discussing the various theories opposed to the views of Virchow, says, "as ingenious as they are, can hardly, at present, be regarded as theories, but must be called hypotheses, for so far, not a single tumor can be proven to have really developed from the causes promulgated." Virchow, quoted by Formad, says, "we also know that on mucus surfaces tumors occur for the most part in such places where there previously was a simple inflammatory disturbance; e. g., where the simple inflammatory catarrh precedes the growth of polyps and polyps may develop into cancer. In cancer of the stomach there is always seen a gradual transition of the catarrhal products to carcinomatous structure * * * *." We next come to certain regions of the body which, from their situation and the character of their function, are exposed to irritation and injuries; e. g., the stomach, sexual organs, bones, skin, and the different orifices. If we make an estimate of all malignant growths, we find that most occur at orifices and at the orifices which are exposed to the greatest injury, consequently those of the digestive and sexual apparatus are most affected." Dr. Woodward[1], U. S. A., and Samuel,[2] of Konigsburg, both agree with Virchow. The former states that, "The origin of the first growth was always to be looked for in local influences. Former injuries of one kind or another could be affirmed in a large number of cases to have preceded the development of the disease and, though frequently the patients had lost all recollection of the original harm, yet it is in this direction we ought to look rather than seek to explain away the real difficulty by invoking the aid of an imaginary cachexia." The latter takes even a stronger view as to the inflammatory theory and says, "The idea of excluding or even limiting the causative relation of chronic inflammation to neoplasm leads far astray from the right path." In epithelioma of the lip we have strong clinical evidence of the malignant growth being of a local inflammatory origin, as the history shows an irritation of long standing caused by the stem of a pipe and heated tobacco juice. Again, we frequently find cancer of the tongue associated with a rough and uneven condition of the teeth. Gall stones have frequently been shown to have proceeded cancerous disease of the gall-bladder; their presence having set up a catarrhal inflammation which eventually produced the new formation. Long continued pressure, cicatrices, the situation of an external injury and ulcers have all been fre-

[1] Etiology of Tumors, Trans. Path. Soc. Phil. vol. X, 1879–81.

[1] Etiology of Tumors, Trans. Path. Soc. Phil., vol. X, 1879–81, Formad.

[2] Ibid.

quently noted as the seat of malignant degeneration. Formad goes so far as to believe, "that all tumors are products of the inflammatory process, and that they should be considered as one of the terminations of inflammation."

The tissues of the neck of a uterus, which is the seat of a laceration, are in a precisely analogous condition as that of other parts of the body which undergo malignant degeneration the result of a chronic inflammation. Furthermore, the position and the function of the cervix renders it especially liable to the inflammatory process. In its relations with the vagina it points directly posterior and slightly toward the left side, resting, as it were, in the posterior cul-de-sac. It is not fixed in this postion but is moved upwards and downwards by the action of the diaphragm, while the abdominal pressure still further tends to keep it closely in apposition with the vaginal wall. Finally, the penis, during the act of sexual intercourse comes into direct contact with it. Therefore, this constant irritation to which the cervix is exposed as the necessary result of its position and mobility, tends decidedly, if it be the seat of a traumatism or of a so-called erosion, to produce a chronic inflammation which may become malignant. Another cause why the cervix is especially liable to an inflammatory process, is on account of its great glandular activity. Parvin[1], in speaking of the structure of the neck of the uterus, says. "The glands, which are so abundant in the cervix that Spiegelberg calls it a great glandular apparatus, are not tubular, like those of the corpus, but racemose." It is a well known fact that inflammation is more liable to occur in organs whose functions are active, and in the cervix we have a structure in which this condition of glandular activity is present, and in which, as the result of a traumatism, chronic inflammation occurs. That the glandular structure of the cervix does enter largely into the consideration in determining the causes of cancer of the uterus is clearly shown by Cushing[2], who says. "What are called erosions, ulcerations, etc., are various degrees of one process, which consists essentially in a new-formation of glandular tissue, on the surface of the vaginal portion, or in the cervical canal. The follicles and cysts are not usually enlargements of pre-existing ducts, but new-formed glands without ducts. In ectropium there is essentially the same process going on in the cervical canal, thus everting the lips. In a comparatively large number of cases, cancers of the cervix are preceded by this condition of gland formation, or, to state it otherwise, when inveterate not infrequently becomes cancerous." * * * * "Where there is a laceration, of course the cervical canal is more accessable, and more ready to take on a diseased action." In the discussion following the paper of Cushing just quoted from, Baker said, that he considered erosions a cause of cancer of the cervix, and that they were of importance even when slight. He advised immediate treatment to avoid the possibility of cancer developing. Strong also stated his belief in lacerations of the cervix being a cause of cancer of the uterus, and said that in the large number of cases of malignant disease of the cervix that he had seen at the Mass. General Hospital and the Free Hospital for Women, not one occurred except where pregnancy had existed.

Wyman[1] holds that "the part of the womb most frequently attached is the neck. It is probable that the injuries which this part receives in parturition, operate as a cause of the disease." Dunning[2] is of the opinion that "cancer of the uterus is frequently of local origin due to local irritation. Emmet's discovery of the pathological conditions due to lacerations of the cervix uteri has emphasized this fact. Few will go so far now as did many a few years ago, when it was the fashion to ascribe the vast majority of uterine diseases to lacerations of the cervix, yet the fact is well established that injury to the cervical tissue, if allowed to go unattended, will sometimes act as an aetiological factor in the production of epithelioma of the cervix." Spanton[3] in a paper on lacerations of the cervix uteri, states that "the importance of this condition has been made more manifest since recent observations have shown that it may be the precursor, if not actually the cause, of a large number of uterine ailments. Dr. Thomas enumerates no less than twelve of these as resulting from laceration of the cervix, and among them he places epithelioma. Other authors state the same thing, while some go so far as to declare that a large proportion of the cases of cancer we meet with in that region result from a damaged cervix." In the Annual of

[1] Sc. and Art of Obstetrics, 2d edit. p. 70.

[2] Erosions of the Cervix Uteri. Bost. Med. and Surg. Jour., March, 1887.

[1] Cincinnati Lancet Clinic, February 15, 1890.

[2] Times and Register, June 21, 1890.

[3] Brit. Med. Jour., April, 1887.

the Universal Medical Sciences for 1891, Spanton "records two cases where a malignant growth had developed from the site of a previously healed specific ulcer of the cervix."

Goodell[1] takes a strong position as to cancer of the cervix being caused by lacerations. After describing the various evils resulting from such traumatisms he says, "Further, I feel very sure that almost every epithelial cancer of the cervix starts from such a constantly chafed and fretted surface. For, in my experience, a cancer of even a movable womb, with a ragged notch on one side of the cervix apparently eaten down to the vaginal junction, is no uncommon event. Also, it is very rarely found in virgins or in sterile women." Again he says, "In the immense majority of cases of cancer of the cervix the disease starts from a laceration of the cervix—it is, therefore, almost always found in women who have borne children."

The opinions quoted in this paper together with my own statements, point, I believe, strongly to the probability of lacerations of the cervix being the predisposing cause of cancer of the uterus. If, therefore, this be true, our duty toward our patients is clearly defined and the only rational treatment of cancer of the cervix is prophylatic. It is not necessary to refer to the literature of the subject to throw light upon the fact that the results obtained in the radical treatment of cervical cancer are far from promising. Nay, it has even become a question in the minds of some of the profession whether we are justified in operating at all upon a uterus the seat of malignant degeneration, as statistics show such a large per cent. of recurrences. At any rate there is no denying the fact that cancer of the uterus dooms, yearly, a vast number of women to an early death. There is a strong tendency at the present day among gynæcologists to deprecate minor surgical operations upon the uterus on the grounds that they are unnecessary, and that the inflammatory conditions so frequently present in the pelvis render such interference dangerous, as being likely to light up an active pelvic or general peritonitis.[2] Although I am fully and sincerely in accord with those who believe in the necessity of excluding all possibility of ovarian or tubal disease prior to any manipulations upon the pelvic organs, yet my clinical experience has taught me that these minor operations do result in benefit in certain selected cases where we have clear and defined indications to guide us. This I believe to be especially true as to lacerations of the cervix, which should, in selected cases, be operated upon to guard against the possibility of cancer.

In considering the prophylactic treatment of cancer of the cervix we must first study the indications which call for surgical interference, and second, the methods of operating. We will classify the indications under two headings. First, those cases in which a laceration causes or is associated with a so-called erosion, and second, cases in which no erosion is present, but where the cervical tear produces subinvolution of the uterus. In the first class of cases we have present just such a condition as is most likely to result in a malignant new formation. In point of fact, the border line between an inveterate erosion and cancer is so illy defined that the microscope even fails to make a diagnosis. My rule in practice is to operate upon all lacerations of the cervix associated with erosion, if treatment fails, in a reasonable length of time, to effect a cure. In the second class of cases we have as the result of the chronic inflammation of the uterus, which is produced by the laceration, the catarrhal and other causes of cancer of the cervix. Therefore I also, under these circumstances, operate upon the traumatism to relieve the condition of subinvolution, which I believe is likely in some instances to degenerate into malignant disease. There is no doubt in my mind of the fact that the vast majority of lacerations of the cervix are physiological, and should be left alone, as they are followed by no evil results, but the point I do wish to emphasize is that, in cases such as I have just noted there is always danger of cancer resulting, and therefore they should be operated upon as a prophylatic measure. To further emphasize the necessity of operating upon a damaged cervix I shall quote from an article of Spanton in the *Brit. Med. Jour.*, April, 1887, in which, after speaking of a report of a case of laceration resulting in cancer, he says: "We have, therefore, in this instance a clear illustration of the possibility of cancerous growth supervening on simple hyperplasia of a damaged cervix, and once begun running a rapid malignant course; and this is the point to which I wish to draw attention. I am quite sure it is one which deserves careful consideration, and should lead us to remedy as speedily as possible every case of lacera-

[1] Lessons in Gynæcology, 1887.

[2] Baldy—Med. News, May 16, 1891.
Noble—Trans. Obs. Soc., Phila., Aug. 1890.

tion or fissure of the cervix which gives rise to symptoms which do not yield to the ordinary local remedies."

Having given the indications which require surgical interference in lacerations of the cervix, I shall state my views as to what operations should be employed. A damaged cervix may be restored by either a trachelorrhaphy or an amputation. It is of the first importance to know which of these operations should be selected in a given case. Trachelorrhaphy should only be resorted to in tears which are not extensive and in cases in which the cervix is not hypertrophied to any great extent. Amputation of the neck of the uterus is indicated in stellar larcerations, in tears which are extensive or associated with loss of tissue and in cases where the cervix is hypertrophied. To attempt to do a trachelorrhaphy when an amputation is indicated would result in no possible good, either in removing existing morbid conditions or as a prophylactic measure against cancer. I have never seen any evil results arising from amputations of the cervix, either immediate or remote. [1] "Alloway, from a study of the influences of cervical amputations on future parturition, finds that it favors impregnation, makes labor more easy, less risk of injury to the cervix, and does not increase the chances of premature labor or abortion." In a case where I amputated the cervix for cancer in a woman in the fifth month of pregnancy, the labor at term was perfectly normal and resulted in no injury to the cervix. This has been my experience in a number of cases in which amputation was resorted to. Trachelorrhaphy clearly has its value and should be the operation selected in cases such as I have indicated, but I desire strongly to urge upon the profession the necessity of amputation when the existing conditions demand it.

The method used by some gynæcologists of taking a wedge-shaped piece out of the anterior and posterior lips and bringing them together, in cases of laceration associated with hypertrophy, I earnestly condemn as being both unscientific and useless. What earthly good can such an operation accomplish which leaves untouched at the site of the tear the cicatricial tissue which is the cause of all the trouble?

In amputating the cervix the technique of the operation is of great importance. The écrascur or galvano cautery should not be used, for after amputating the cervix with either of these instruments a large raw surface results which must heal slowly by granulation. This process of healing necessarily retards recovery and at the same time is liable to cause stenosis of the external os uteri.

The method I adopt in amputating the cervix is as follows: After the introduction of the speculum the anterior lip of the cervix is seized with a Volsella forceps, and with a pair of scissors the laceration is extended down on either side to the vaginal junction. The anterior and post lips are then amputated evenly with the vagina. This leaves a clean, raw surface which is covered over by stitching together the surrounding vaginal mucous membrane with silver wire, leaving the edges open directly over the os uteri and afterwards securing them with cat-gut sutures to the rim of the os. A continuous cat-gut suture is then introduced so that the os uteri is completely encircled at a distance of half an inch from the centre of its opening. This suture brings the flap of vaginal mucous membrane in close apposition with the cervical tissue. After the operation is completed the upper portion of the vagina should be tamponed with antiseptic gauze. This operation is a modification of the one devised by Sims in 1859, which consisted in simply covering the stump of the cervix by bringing together, with sutures, the surrounding vaginal mucous membrane. The objections to this operation as stated by Goodell are "cicatricial closure of the os and in the danger of secondary hæmorrhage, the mucus lid not making compression enough to close the open-mouthed vessels." To meet the first of these objections I follow the plan of Goodell and stitch the edges of mucous membrane which are directly over the os uteri to the border of the opening. The danger of secondary hæmorrhage I meet by the continuous circular suture of cat-gut; this I believe to be original with me. This suture not only lessens the danger of hæmorrhage but it also assists materially in securing union by first intention.

In conclusion I will sum up my views as follows:

1. I believe cancer of the uterus to be local and inflammatory in origin.

2. That lacerations are the cause, in almost every instance, of cancer of the cervix.

3. That the indication for operating upon a damaged cervix is pointed out by the failure of local treatment to effect a cure.

4. That trachelorrhaphy and amputation are the only surgical means to repair a damaged cervix.

[1] Annual Univ. Med. Sc., 1891.

5. That amputation should be resorted to in the majority of cases where an operation is indicated.

6. That the stump resulting from the amputation should be covered over by a flap of vaginal mucous membrane.

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ON THE GREAT IMPORTANCE OF DRY TREATMENT IN CHRONIC OTITIS MEDIA.

BY LAURENCE TURNBULL, M. D.,

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In a paper which was read before the Virginia State Medical Society in the summer of 1890, the absolute necessity of the antiseptic treatment of this form of disease of the middle ear, was dwelt upon. Not only the agents employed, but above all, giving protection to the diseased cavity, by means of antiseptic gauze and other measures.

The great number of these chronic cases are found to depend upon some constitutional disease, either scrofulous, tuberculous or specific disease. In every instance the fluids employed to remove the diseased secretions, must be sterilized by boiling and should contain a small proportion of bichloride of mercury combined with iodium salt.

But no syringing should be done by the patient, only by the physician, and this chiefly for diagnostic purposes. It is necessary, to treat the cases with success, to find out by means of the speculum and mirror, the condition of the mucus membrane of the cavity and the membrana tympani so as to make the proper applications.

Should there be considerable secretion of pus, etc., the solution of the per oxide of hydrogen, 1 part, sterilized water, 3 parts should be employed. After each cleansing of the parts, and opening the eustachean tubes, the auditory canal is carefully wiped dry with absorbent cotton and the parts covered with finely powdered boracic acid and one-sixth per cent. of pure menthol camphor rubbed up together.

The inflation of the middle ear should always follow the cleansing process (preceded in every case by the patient's cleansing the nose,) and this inflation should be done with antiseptic air, by filtering it through bichloride of mercury cotton, placed in the centre of a bulb, and attached to the nose piece of Politzer's bag.

An adaptation of Politzer's idea in a primitive way has been made by one of my friends. He uses instead of the rubber bulb a moderate sized syringe, connecting with the nozzle a rubber tube. The operation is the same as with Politzer's bag, save that air is forced from the barrel of the syringe instead of from an elastic bag.

TWO CASES OF ACUTE PARENCHYMATOUS GLOSSITIS.

BY RAY W. GREENE, M. D.,

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In looking up the literature of this subject I find so few cases reported that these two histories may incite some one else to report equally interesting cases.

On the evening of April 1, 1889, I was called to see a man of about 60 years of age, medium size, then of nervous temperament with previous history of occasional illnesses, but of only one serious sickness, viz., pneumonia some 8 years before. His occupation as Custom House Inspector at Boston had for 2 or 3 years become very arduous and the overwork was very apparent to his family and friends. To meet the demand of business this patient on his own account became a frequent user of hypnotics, which for years he had kept in the house for occasional use. Also from 1 to 2 f℥ of whiskey was taken at bed time for sleep. On the afternoon of the day mentioned, without any unusual exposure, the patient had quite a severe chill, vomited his dinner, felt very weak and his throat began to be sore. At 7 P. M. I found his pulse 120; temperature 103°; the fauces looked slightly congested, but the tonsils were not swollen nevertheless. I made provisional diagnosis of violent onset of tonsillitis, and ordered tincture aconite and tincture quinine during night, and Sedlitz powder in the morning. The following day the temperature and pulse were the same. He had passed a very restless night, although good sized doses of hypnotics had been given. In the afternoon the tonsils were red, but not swollen much, while the tongue was evidently quite enlarged so as to interfere with talking and swallowing. The patient was very nervous. I staid with him part of the night, producing some sleep by the use of morphine injected under the skin. On the third day he presented a most pitiable picture. The tongue was enlarged so as to nearly fill the mouth, and protruded half an

inch between the separated jaws. It was covered with white, thick coat, which later became a dirty brown. The saliva dropped copiously from the corners of the mouth, the submaxillary glands were swollen and hard. The eyes were slightly staring and the face wore an anxious look.

Being unable to articulate or swallow, the patient, by writing, made his wants known. He was very sure that he was going to choke to death, although he was told that there was very little danger of it. At his very urgent request, I remained with him during the night. The symptoms grew worse but the respiration was but little affected, so that tracheotomy was not anticipated, though preparations were made for it. Nutrient enemata were given also in the same way; the medicine consisted of whiskey, quinine, bromide and opium. During this night the disease was at its height. The patient suffered internally from sensations of choking, especially whenever he began to sleep, so that for this reason, he was afraid to sleep. The following day, which was the fourth day of the disease, the temperature was 100°, pulse 92, and the tongue was diminished in size, though the patient was still unable to speak or swallow. There was no sign of any pus formation, as far as we could judge. From this time the local symptoms gradually subsided, so that rectal feeding was necessary for 48 hours only. In a few days the mucus membrane of tongue and mouth was almost entirely free from coating, leaving a very red sensitive surface. For many days there was no taste and no desire for food. The temperature and pulse remained above normal for some time. This attack was followed by a general prostration marked by extreme nervousness, slight mental aberration, insomnia, slow return of appetite, so that more than three months elapsed before he was able to resume any work. Of course this long illness was the result of general exhaustion and cannot be considered a convalescence for glossitis, though undoubtedly the apprehension of choking (which he afterwards said he actually suffered for 36 hours) must have been something of a shock to his already weakened nervous system. The patient since then has developed phthisis and is now well advanced.

While in attendance upon the case just cited, I was called to see a young man of Irish parentage, of good family and personal history. Occupation, a plumber's assistant. He complained of sore throat and much pain in swallowing. On inspection I found the throat generally inflamed. The floor of the mouth on the left the side centering about the location of the sublingual gland was swollen and very tender. Under the chin of same side there was swelling and tenderness.

Poultices ordered for the neck and mouth were given. Thirty-six hours later I was sent for very early in the morning. The tongue was more than twice the normal size. The patient had not slept the previous night for fear of choking. The temperature and pulse normal. The area over the sublingual gland about the same size as before. He is able to swallow liquid fluids with difficulty. Calomel, grs. 10, to be followed in four hours by saline till the bowels move freely. Listerine for mouth spray and poultice continued.

Two days later a small abscess broke in the region of sublingual gland, but not, I think, in the gland. About 2½ oz. of foul pus discharged. The opening was dilated and syringed out daily with a weak solution of chloral for three or four days, when the tongue was nearly normal in size and patient practically well.

ABORTION AT FIVE WEEKS, WITH SUBSEQUENT EXAMINATION OF THE EMBRYO.*

BY T. RIDGWAY PARKER, M. D.

The following case is reported, not on account of the infrequency of abortion at such an early period of gestation, but rather with the hope that a full and detailed account, accompanied with a thorough examination of the embryo, which one is rarely successful in securing, may prove of interest to those devoting their time and attention to a heretofore much neglected subject:

M. S., aged twenty years, married, no children, gives the following history: Menstruation began at the age of thirteen years; she had always been regular in her menses, though at times the flow had been profuse, and accompanied by considerable pain. Her general health is good; there exists no kidney trouble nor specific taint of any kind. She last menstruated on November 6, 1890, duration five days. The discharge being normal in every respect, save that it was accompanied with some abdominal pain. On the arrival of her next period to menstruate, December 4th, there was no flow, nor any symptoms indicative of its approach. The

*Read before the Phila. Co. Med. Soc. June 10, '91.

patient was gratified by this state of affairs, as she believed herself pregnant. Week succeeded week without any appearance of her sickness, and hope continued to grow in her breast.

On the 26th of December I was called to see Mrs. S., whom I found very anxious and alarmed about her condition, as she had passed, she told me, a small clot of blood, and declared she felt as if her sickness was about to return, though it was not at a menstrual period. On questioning her further, I was unable to discover any symptoms of pain, and therefore merely advised her to keep quiet and avoid exercise of an exhaustive nature, as I feared should she fail to heed my words of caution that she might suffer from an abortion, it being my opinion, on examination of the vulva and mammæ, that she was some five weeks pregnant. While, of course, it was impossible to make a positive diagnosis at this early stage of gestation, still from the globular form of the breasts, the prominence of the nipples, and the dimpling at their summits, in addition to the purplish hue of the vagina, I considered such a supposition justifiable. As my patient was a blonde, the areolæ were faint, and could not, therefore, be regarded as of much importance. Nor were there sufficient gastric or nervous symptoms present to warrant me in expressing a more positive opinion.

On the following day I called to see Mrs. S., whom I found suffering great pain, which had come on during the night, and was paroxysmal in character, and referable to the back and hypogastrium. Her distress was of such an aggravated form that it was necessary to afford relief as promptly as possible by giving a hypodermic of sulphate of morphine. I learned on inquiry that during the night she passed several clots of blood, and that the flow had been so free that she was obliged to have frequent recourse to a change of napkins. The pulse, at the time of my morning visit, was quick and weak, and the temperature considerably above the normal. I determined, therefore, to explore the vaginal canal, and at the same time examine digitally as to the condition of the uterus. The cervix was discovered by the finger to be softened and the os slightly patulous, while the body of the uterus was enlarged and tender. Continuing my examination I felt several clots in the posterior fornix of the vagina; these I removed, which, on escaping into the palm of my hand, were found, in part, to consist of coagulated blood, but, in addition, an ovum with its membranes intact. This was placed carefully aside until my patient had been rendered more comfortable.

The treatment was generally symptomatic, consisting of anodynes and antipyretics, which seemed all that was required, as the hæmorrhage was slight, and not likely to increase, but rather diminish, since the uterus had expelled its contents. My attention was now directed to an examination of the product of conception. The ovum, to the naked eye, had the appearance of a pale-yellow vesicle, save where the crimson shaggy villus processes projected from the chorionic membrane. The whole mass measured six-tenths of an inch in diameter, while the length of the villi averaged only one-tenth. At the point where the outer portion of the chorion had been torn off from the ovum (indicating the place of separation of the ovum from the decidua), the membranes were so thin and transparent that the eye could clearly discern through them the diminutive embryo, but one-fifth of an inch in length, surrounded by its amnion, which closely invested it. From its caudal extremity could be seen the allantoic stalk extending out to the periphery of the ovum where it fused with the subzonal membrane. The direction which this vascular outgrowth was observed to take was, first, at right angles to the long axis of the embryo until it passed beyond its inferior extremity, when it made an abrupt turn and changed its course so as to run parallel to longitudinal axis. Two vessels of a crimson color were visible, but they could not be traced to the periphery, though very distinct for more than half the length of the allantoic stalk. That portion of the ovum from which the chorionic layer with its villi had been torn off was directly at the point where the duct of the allantois joined the outer ovular membranes. In other words, the outer layer of the chorion with its villi had been separated from the ovum at what one may reasonably suppose to be the placental site. Hence one is justified in concluding that the villi in this locality were larger and more deeply imbedded in the placental decidua (decidua serotina) than at any other point. Further, that the ovum was lost, not on account of any morbid state of the uterine mucus membrane, but through traumatism, the source being unaccounted for and unknown. The villi appeared perfectly normal, and were of a bright crimson color. As regards their structure and development, there was nothing suggestive of any pathological change having occurred. By means of a keen, delicate instrument it was possible to dissect the membranes entering into the

formation of the chorion, and expose three layers to view.

The external, from which the villi were outgrowths, being the opaque altered vitelline membrane; the middle, thin and transparent, I judged to be the remains of the zona pullucida and false amnion (subzonal membrane), while the third and internal, similar to the middle coat, represented the membranous portion of the allantois. Of these three separable membranes making up the chorion, the external alone was opaque. The ovum was slightly heavier than water, yet did not sink to the bottom of the phial in which it was placed, the villi seeming to buoy it up. Beneath the chorion and enclosed by it was a space filled with some thirty minims of a clear, highly refractive fluid, almost colorless, separating the chorionic walls from that of the amnion.

This fluid was of a neutral reaction. Cutting through the layers of the chorion, the fluid was permitted to escape, but did so very slowly, as there existed delicate bands of fibres extending from the amnion to the chorion. These fibres did not cross each other, but radiated from the diminutive amnion, like the spokes of a wheel. It became necessary to divide these before the embryo with its membranes (amnion) could be liberated. The allantoic attachment was not, however, disturbed, that the relation of the parts might not be disturbed. Having freed the amnion, it became advisable to extend the examination so as to include the embryo and its appendages.

The umbilical vesicle had undergone atrophy, and was apparently quite empty. It inclined toward the abdomen of the embryo, and was scarcely as large as its neighbor. It was pear-shaped, and resembled a balloon that had almost collapsed. No vessels of any kind were visible in or upon its walls, which were corrugated and shrunken.

Proceeding next to a microscopic examination of the embryo by means of low and high power objectives the following structures were studied: The embryo occupied a position at the centre of the ovum, where it remained almost stationary, being held in place partly by the amnion and its chorionic fibres, and partly by the allantois. It was a yellowish-white, opaque, gelatinous mass of matter, soft and friable.

The outer covering consisted of round nucleated embryonic cells closely packed together. The long diameter of the embryo, corresponding to the vertebral axis, was one-fifth of an inch in length, while its transverse diameter was not more than one-fourth as great. No eyes were visible, though diligently sought for, nor was it possible to discover even rudimentary upper or lower extremities. The caudal portion of the embryo was very distinct, and being slightly transparent one could see without difficulty the segments of the notochord and the embryonic vertebral arches in their processes of development through the outer covering. The abdominal walls were still separated, and hence there existed a direct means of communication between the umbilical vesicle and the visceral cavity. The cephalic extremity of the embryo presented nothing peculiar nor characteristic, being simply a rounded mass of matter, similar in appearance to that making up the body walls. The line of demarkation between the head and the trunk was but a constricted portion, which represented the neck. No bronchial arches were made out, nor the presence of any oral cleft. Examination of the deeper structures was rendered impossible by the rapid disintegration of the tissues.

As regards the patient, after a week's rest in bed, necessitated by the nervous prostration incident to the sympathetic disturbance, she regained perfectly her health and strength, and there remained no uterine or other unpleasant sequelæ.

In this report of my examination of a five weeks embryo and its coverings I am well aware that there are statements quite at variance with those recorded by several authors, among whom may be mentioned Hirst, in his *System of Obstetrics*, vol. i, wherein is stated, page 129: "In the human embryo the period during which the umbilical vesicle increases in size ends at about the sixth week; then its rapid diminution commences." Yet, in my specimen, I found the vesicle almost empty, much atrophied, and its walls shrunken at five weeks gestation. Again, as to the number of coats comprising the chorion: by nearly all the authorities it is said to consist of but two—externally, the subzonal membrane; and internally, the allantois—through the disappearance of the vitelline membrane, zona pellucida, and internal lining membrane of the primitive ovum. Yet, when I began the dissection of these chorionic layers, I found it possible to separate *three* distinct membranes as described above. The villi were further noticed to be outgrowths from the external layer, not being imbedded in anyway in the underlying structures. As to

the absence of eye-spots and rudimentary extremities I have no satisfactory explanation to offer. This lack of development may have been due to an insufficient supply of nourishment, or subsequent investigation may prove these structures to appear at a later stage of gestation.

SELECTED FORMULÆ.

ARISTOL.

Richtmann recommends replacing iodoform in all cases by aristol. The latter is non-irritant, and its odor is not disagreeable. Its only drawback is its insolubility in water. It may be prescribed in powder, in ointment or in solution. The following are the formulæ that the author employs:

℞ Aristol.....gramme 1.
Ether.....grammes 10.
S. For external use.

℞ Aristol.
Castor oil, aa.....gramme 1.
Collodion.....grammes 8.
S. To paint the affected parts.

℞ Aristol.....grammes 2.
Vaselin.....grammes 18.
S. To apply on the affected parts.

℞ Aristol.....grammes 3.
Olive oil.....grammes 20.
Lanolin.....grammes 77.
S. To apply on buras.

—*Nouveaux Remèdes.*

REMOVAL OF MOTHER-MARKS.

The *Allgemeine Medicinal Central Zeitung* gives the following as very efficacious: Mix one part of tartrate of antimony with four parts of emplastrum saponatum and work into a paste. Apply the mixture over the mark to be removed to the depth of one line (one-twelfth inch), and cover with a strip of gummed paper or court plaster. On the fourth or fifth day suppuration sets in, and in a few days later scarcely a sign of the mark can be seen.—*Amer. Med. Jour.*

ECZEMA OF THE ANUS AND GENITAL ORGANS.

Lustgarten advises the following ointment:

℞ Oleate of cocaine.....gr. xij to xxiv.
Lanolin.....f℥i.
Olive oil.....f℥ij. M.

Apply twice daily, and after each application powder the affected part with an absorbent powder.

FUMIGANT FOR ASTHMA.

℞ Stramonium leaves, Green tea } of each.....ʒ j.
M. Lobelia inflata.....ʒ iij.

Add a saturated solution of potassium nitrate, dry, and preserve in a well-stopped bottle. A teaspoonful suffices for a fumigation.—*La Sem. Med.*

STYRONE IN CHRONIC PURULENT OTITIS MEDIA.

Cheltsoff ascribes great value to styrone in the treatment of middle-ear disease. Very good results were obtained by syringing with the following:

℞ Styrone.....gr. xx.
Alcohol.....f℥j.
M. Sig. One part of the above to 20 parts of water.

FOR ANTHRAX.

Dr. Spohn, in the *Semaine Médicale*, recommends the following application in anthrax:

℞ Chloral. hydrat.....grammes 50.0.
Glycerini
Aq. distill., aa.....grammes 90.0.
M. et Sig. For external use.

Gauze kept constantly wet with this solution, should be applied to the anthrax. Any incision is deemed superfluous.

PURULENT OTITIS MEDIA.

Pentkowski, in the *Duetsche Med. Wochenschrift*, recommends the following treatment for purulent otitis media.

The ear should first be syringed out with a warm solution of sulphate of soda, and after being cleaned again, syringed with the following solution:

℞ Ol. menth. piper.....gramme 0.18.
Solve in alcohol. absolut.....gtt. 75.
Aq. dest.....grammes 100.0.
M. Sig. For external use.

Then a pledget of cotton soaked in the following mixture is inserted into the ear:

℞ Ol. menth. piper.....gtt. j.
Aether. sulph.....gtt. 100.
M.

By daily applications of this kind, Pentkowski claims always to have obtained a complete cure within two weeks. In all other cases, where the patients cannot come for daily treatment, he prescribes a powder composed of boracic acid with 1 per cent. of ol. menth. piper., as an application.

ANTIPYRIN IN BLENORRHAGIA.

Brenisa, in the *Journal de Méd. de Paris*, recommends the use of antipyrin in blenorrhagia, prescribing it in the following formula:

℞

Antipyrini	grammes 3.0.
Zinci sulphatis	gramme 0.3.
Aq. rosæ	
Aq. lauro-cerasi. aa	grammes 60.0.

M. Sig. For urethral injection.

ZINC GLUE FOR STIFF SURGICAL DRESSINGS.

Treutler recommends a preparation, first suggested by Unna, for obtaining stiff surgical dressings, such as are applied to fractured or dislocated limbs. It is as follows:

℞

Oxide of zinc	parts 10.
Gelatin	parts 30.
Glycerin	parts 30.
Water	parts 30.

This is thickly applied and rubbed into the muslin or gauze forming the bandage. A thinner preparation contains 20 parts of gelatin and 40 parts of water, the other ingredients remaining the same.—*Med.-chir. Rundschau.*

CHRONIC RHEUMATISM.

The clothing of the patient must be attended to. It is essential that flannel should be worn next to the skin. The Jäger underclothing is very good. The diet should be nourishing, and, if stimulants are required, a little whisky is, perhaps the best. The internal treatment adopted is very various. I have found the following prescription most useful:

℞

Pot. bicarb.	gr. xv.
Pot. iod.	gr. iij.
Tr. hyoscyam.	♏ x.
Spt. chlorof.	♏ v.
Inf. gentian.	ʒss.

M, S. Ft. haustus, ter in die.

In strong adults, a few drops of vin. colchici is beneficial. I have seen good results from three-grain doses of salicylate of soda three times daily. Gaiacum is useful in some cases.

As the patient progresses, a mixture of the following may be given:

℞

Ferri et ammon. cit.	gr. x.
Pot. iod.	gr. iij.
Pot. bicarb.	gr. xij.
Spt. chlorof.	♏ v.
Aquæ pimentæ	ʒij.

M. S. Ter in die.

The syrup ferri iodidi answers well in some cases. If there be much pain, opiates, especially given subcutaneously are often of marvelous efficacy. If the patient is debilitated, cod-liver oil is useful.—STAPLE, *Hospital Gazette.*

HOW TO GIVE CASTOR OIL.

The *Dixie Doctor* says to administer castor oil pleasantly, thoroughly mix the dose with four times as much hot milk, shaking the two together in a bottle which they do not more than half fill. When taken in this way the activity of the oil seems to be increased, and being rendered very limpid by the hot milk its oily nature is not perceived. It is scarcely to be distinguished from hot milk.

GLUCOSE TO COVER THE TASTE OF IODINE.

The administration of iodine uncombined is usually objectionable to the patient, yet in many chronic disorders it is preferred by some practitioners to any of its saline combinations. Its difficult solubility in water alone is a hindrance to giving it in this condition, owing to the quantity of a simple aqueous solution necessary for a dose. Sugar not in its ordinary condition is unsatisfactory as an admixture, but it is found that glucose can be utilized much more acceptably. Dr. F. P. Mann, of San Francisco, suggests the following formula, and prefers that the form of glucose should be that of molasses, and that the mixture should be made for at least one day before it is administered:

℞

Iodinii	ʒss.
Potass iodidi	ʒiss.
Aquæ pura	ʒiv.
Syrup fuscus	ʒxij.
Ess. gaulth.	ʒij.

M. ft. sol. sig. Take teaspoonful between each meal, with a little water.

—*Phar. Rec.*

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When it is desired to call our attention to something in a newspaper, mark the passage boldly with a colored pencil, and write on the wrapper "Marked copy." Unless this is done, newspapers are not looked at.

The Editor will be pleased to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

LEADING ARTICLE.

THE ANÆSTHETIC PROBLEM:—ETHER VS. CHLOROFORM?

The controversy as to the relative merits of ether and chloroform as anæsthetic agents is being carried on vigorously abroad, and it is next to impossible to pick up a foreign medical journal without finding some allusion to the subject under consideration. One of the most valuable papers on this topic recently published, is by Dr. Julliard, a leading surgeon of Geneva, which appeared in the *Revue. Médicale de la Suisse, Romande* February, 1891, and is made the subject of an editorial in the London *Lancet* for April 25, 1891. In this paper Professor Julliard describes how he was first led to investigate the merits of the two anæsthetics; owing to the death of one of his patients by chloroform during the reduction of a dislocation; and in 1877, he began to employ ether. Since that time he has had no accident in 3,654 cases of operation.

He points out in this brochure the fact that both drugs will destroy life if pushed beyond a definite point, and he discriminates between their normal physiological result and the accidental effects they occasionally produce. Both agents may, he asserts, produce primary or secondary arrest of respiration, with this difference, that the arrest of respiration by chloroform is nearly always sudden, while that occasioned by ether is, as a rule, gradual. He also mentions the fact that the cessation of respiration from chloroform narcosis is more liable to be permanent, and artificial respiration of less use in the attempts made to restore the normal functions of the respiratory mechanism, than is the case in narcosis resulting from the use of ether.

Regarding the influence of chloroform on the heart, Dr. Julliard notes the difference between the primary syncope occurring during the early stages of chloroform inhalations and the secondary syncope which is liable to occur during profound anæsthesia. The syncope of the early stage of chloroform anæsthesia is sudden and dangerous, while the secondary syncope is slower in its onset and

is nearly always preceded by cessation of the respiration.

In etherization, Dr. Julliard is convinced that the tendency to primary syncope is much less frequent than in chloroformization. Death occurs much more frequently with chloroform before the stage of complete anæsthesia than with ether. This statement he supports by statistics, in which he shows that of 243 cases of death by chloroform, more than one-half occurred before anæsthesia ensued, while in 60 cases of death by ether only 4 happened before the operation began.

Dr. Julliard confirms the general opinion expressed by unbiased anæsthetizers that secondary syncope is less common with ether than with chloroform; he likewise concurs with the prevalent opinion, in this country, at least, that the danger from chloroform is mainly the production of heart-failure, while that from ether is largely due to failure of the respiratory apparatus. He also points out the fact that artificial respiration is of more avail in this latter condition, arising from etherization, than it or other efforts made to restore the heart's action when that organ stops in the primary syncope arising from the employment of chloroform.

Dr. Julliard gives as his own experience with ether, covering a period of 14 years, that out of 3,654 administrations he has not had a death, and adds: "Not only have I not had any deaths, but I have had no alarming accident. I have not once had to resort to artificial respiration, neither have I had to interrupt an operation in order to ward off any accident, due to etherization. I cannot say as much for my chloroform administrations." This statement is certainly a glowing tribute to the safety of ether, by one who was formerly a strong advocate of the use of chloroform.

In a valuable statistical summary, gathered from various sources, Dr. Julliard is enabled to prove the comparitive safety of ether over chloroform: In 524,507 cases of chloroform anæsthesia there were 161 deaths, or 1 in 3,258; while in 314,738 cases of etherization, only 21 deaths occurred, or 1 in 14,987. A mortality from chloroform four times greater than from ether.

Dr. Julliard sums up his arguments by stating:

1. That anyone who is anæsthetized by chloroform or by ether, in a measure, jeopardizes his life; and

2. That the danger involved is five times less with ether than with chloroform.

In reference to the asserted dangers and disadvantages of ether, Dr. Julliard considered no less than eighteen objections to the drug. We reproduce here a few of the points he considers with his comments made thereon:

1. Ether is disagreeable. This is a matter of taste and is hardly worthy of consideration, in view of the risk.

2. Ether is less active than chloroform, and the anæsthetic effect is more slowly produced. This Dr. Julliard admits, but considers that the delay is amply compensated by the additional safety of the drug.

3. Vomiting is more common after ether. This he proves to be untrue, according to statistics and his own experience.

4. Ether excites bronchial secretion. Dr. Julliard states this is a rare occurrence and that such a tendency of the drug is much diminished by the subcutaneous injection of morphine and by administering a well-diluted vapor of the anæsthetic, etc.

We have quoted somewhat freely from the paper of Dr. Julliard for several reasons:

1. Because of the continued dispute, abroad and even in our own country, as to the relative anæsthetic value of the two drugs —ether and chloroform.

2. Because Dr. Julliard, who is a surgeon of note and a former advocate of the supremacy of chloroform as an anæsthetic, has by reason of a thorough trial of ether reached the conclusion that it is not only the more satisfactory anæsthetic but is also the safer agent of the two.

In conclusion, we would refer briefly to a practical point of some considerable importance, which is alluded to in Dr. Julliard's paper, to wit: the use of morphine previous

to etherization, for the purpose of favorably modifying the action of the anæsthetic. Morphine, to be used in this manner must be given hypodermically in the dose of one-sixth to one-third of a grain, to an adult, at least *forty minutes* before beginning the administration of ether; otherwise, if the operation is to be commenced immediately, according to an extensive series of observations made by Wm. Rigaud and Sarazin, at the hospital of Strasburg, an injection of morphine will augment the period of excitement, and if the dose be tolerably large, accidents on the part of the respiratory mechanism may occur.

The administration of an opiate, in the manner directed, is claimed to act happily in reducing the stage of excitement and the tendency to vomiting; it is also said to promote the subsequent rest of the patient by inducing sleep and to lessen by one-half to one-third the amount of the agent employed to induce anæsthesia.

This plan of modifying the anæsthetic process by hypodermic injections, was first practised by the eminent Munich surgeon, Nussbaum, who published the results of his experiments in the *Bavarian Medical Intelligencer*, for October, 1863.

We are aware that a difference of opinion exists as to the beneficial effect of opium used in combination with either of the anæsthetics named. Most of objectors to the practice of mixed anæsthesia, admit that the employment of morphine and chloroform is open to less objection than the same use of morphine and ether.

The objection urged ugainst the use of a narcotic in these cases is, that in combination with ether, opium is apt to produce a great tendency towards respiratory failure; and in the case of its administration before resorting to chloroformization, it is liable to provoke undue excitement and emesis.

In our opinion, when an operation is to be a protracted and severe one, an opiate in combination with a moderate dose of atropine, hypodermically, does good and lessens the period of ether excitement as well as the amount of the anæsthetic required.

The atropine acts happily as a reliable cardiac respiratory stimulant.

There is no question in our mind, that whenever morphine is so used, it should be given in combination with atropine. *As a preventive of accident, atropine is undoubtedly far more reliable than as a means of rescue when such has occurred.*

A most valuable essay upon the subject of the anæsthetic process by the hypodermic injection of narcotics is to be found in the article of Dr. J. C. Reeve, of Dayton, Ohio, published in the *American Journal of the Medical Sciences*, April, 1876, p. 374.

CORRESPONDENCE.

A PROTEST AGAINST THERAPEUTIC PSEUDO-SCIENCE.

To the Editor Medical & Surgical Reporter:—

A certain famous Talmudist, Maimonides by name, was justly esteemed wise as a physicion as well, if for no other reason than that he enunciated and followed this rule of procedure for each case entrusted to his care. On the first visit he confined his attentions to thorough examination; on his second he administered simple remedies such as are found in ordinary households, regulating meanwhile the environment; on his third he was prepared to give drugs if indicated. It goes without saying that under such circumstances these last came in for little enough use to satisfy almost the therapeutic nihilist. Limitless lessons might be drawn from the dictum of this wise yet little known philosopher and it is to be hoped that his rule of action will obtain the consideration, through the widely influential pages of this journal, which it richly deserves. I have but a word to say concerning the middle proportion and wish to point out how large a field of usefulness might be covered by a critical scientific search into those curative agencies called domestic remedies; also to note the value of relentlessly pursuing our grossly exuberant advanced therapeutics.

It is quite the fashion nowadays among eminently conservative medical men to shout and sing pæans on the appearance of a new compound which its enthusiastic supporters have hastily percolated through the various "systems" of patient beasts in Physiological Laboratories or yet more un-

resisting culture media. Add to this further dilution through the tissues of unsuspecting and perhaps emotionally benefited dispensary patients. Thereupon, these judicious observers, backed up by a great array of observations, confidently raise the banner of the new wonder worker.

The medical press discriminating gravely against fanciful assumptions, is reluctantly induced to publish all this. Editorials are written in a style strangely like the articles from the laboratory and hospital, gravely asserting that wondrous truths are thus, and now under Providence, made known.

Meanwhile a modicum of reward in the shape of public notice is shed like dew upon these observers. This may not be always covert self-laudation nor advertisement, certainly. It is love of scientific knowledge in the main, though seeming oftimes otherwise.

Such researches moreover have proved not seldom to be rounds in the ladder of fame to many bright medical lights. Assuredly much of incalculable value is thus set forth but here and there the impostor gains credence from his worthy company and because his walk and conversation, being entirely in the mode, so closely resemble the true student.

All praises to the self-forgetful toilers who, from pure impulses, searching out the dark mysteries of nature and disease have, in season and out of season, added to the sum of medical knowledge.

The great Trousseau said long ago, when Empirical Therapeutics, then emerging from the fogs of undigested prejudices, began to accept the explanations of experimenters, "distrust medical theories that originate in the laboratory. Although chemistry may be the handmaid of medicine she goes beyond her sphere when she applies the conclusions of the laboratory directly to the treatment of the sick. Chemistry stands little nearer to medicine, because she teaches us how to prepare or to analyze medicines than she does to the art of painting because she prepares the painters' colors."

This is as true to-day as then—both as to the chemical and physiological laboratory.

Too much honor cannot be given to the myriads of unrewarded students who have placed medical knowledge on its present pinnacle of public confidence. The human race is their hereditary and perpetual debtor for what they have done and are constantly doing. Too much confidence can be and is all the while being shown to the impostors, conscious or unconscious, who pose as scientific searchers and teachers.

It is the plain duty of medical men, particularly the great body of conscientious general practitioners looking with reverence upon the great teachers, to cry aloud and denounce those who by accident or design distort the waves of thought in the smallest particular.

There is but one quality which fitly adorns and conditions science, and that is accuracy. This involves unbending honesty of purpose in the arrangement of facts and the record of observations from whence, through much purification, comes the perfect truth.

Judged by this severe standard a very large part of recent medical literature would be found wanting. Whole volumes even now lie neglected on library shelves not yet written a score of years. These are not valueless, perhaps; at least they may serve as landmarks of progress, but they are exceedingly cumbersome and clog the student's movements overmuch.

My object here is merely to sound the note of revision and reconsideration. To begin pretty far back moreover, and not lose sight of the too much neglected old-fashioned remedies—remedies the utility of which was fairly established by wholesome minded enquiring empiricism—that process of practical evolution to which good and safe medical practitioners owe so much, but being no longer fashionable is now sneeringly ignored. And again to point the sceptical finger at the hastily constructed masses of pseudo-scientific facts which, since they are the fashion, pass current for reputable data.

To be sure it may be answered that this process of selection goes on unconsciously and steadily; that human thought works out its own problems in time unassisted. Not so. Elimination and intelligent selection cannot be dispensed with.

Guiding hands exercising the quality of judgment will be needed among all peoples and nations "till Shiloh come."

Thoreau in his clean hearted contempt for conventional restraints somewhat sweepingly but with much force says, that the true vocation of the scholar is "to unlearn the first ideas of history, of science, of social institutions, to unlearn even our own life and purpose; to unlearn the old mode of thought and way of arriving at things; to take off peel after peel, and so get by degrees slowly, towards the truth."

If this discriminating power be not ever needful, upon the failure of what selective influence can we place the blame for such a

wretched fiasco as the Koch's lymph episode?

Here a nation enjoying the reputation for greatest gravity and refinement of knowledge upon the occasion of a great international festivity and opportunity for self-glorification, looks about for a hero or a victim. They seize upon a student in his laboratory, who has modestly announced himself on the verge of a great discovery and with ruthless hands drag him protesting to disgorge his grand idea in undigested shape for their gratification; literally "butchered to make a Dutchman's Holiday." They bandy his pearl of possible wisdom about in filthy hands subjecting it to worse than destruction and finally, when unable to use it, hurl it back with curses in his face.

Why also is a large part of the so-called intelligent community yet fondly hoping, yea, fully expecting, marvellous curative results to come from the shrewdly handled mysticisms of homœopathy?

No reasonable doubt can linger in the mind of an intelligent man who may give these facts his attention but that more discredit comes upon the art of medicine from the barnacles of garbled, distorted, ill-digested and putrefying masses of falsely scientific fact and belief than from a too conservative or narrow minded neglect of the wondrous truths constantly opened up to us.

That these matters right themselves if let alone is no more true than that the body rights its functions unassisted.

This self-regulation of the bodily organs does frequently occur but more often demands judicious aid.

The man who keeps ever a watchful critical eye open to point out and correct the diseased tendencies of medical thought will do almost as much for truth as he who makes new and pyrotechnic discoveries.

And finally, is it not the plain duty of all conscientious medical men to stand ready to pull down or denounce false beliefs ever and always?

J. Madison Taylor.

A CORRECTION.

We are in receipt of a letter from Dr. Edward Vanderpoel, of New Suffolk, N. Y., relating to a typographical error in his letter to us, which appeared in the Reporter for August 8. The doctor says:

"In the prescription I gave, the mistake has been made of stating that it was for *five* pills, instead of for *one*. The corrected formula should read as follows:

℞ Chlor. hydrarg. mit.....gr. ij.
Ex. hyoscyan.....gr. jss.
Podophyllini.....gr. ½.
M. For *one* pill.
Signa. One pill to be taken every two hours until relieved."

Book Reviews.

SEXUAL NEURASTHENIA—ITS HYGIENE, CAUSES, SYMPTOMS AND TREATMENT, WITH A CHAPTER ON DIET FOR THE NERVOUS. By George M. Beard, A. M., M. D., Formerly Lecturer on Nervous Diseases in the Univ. of the City of New York, etc. Edited by A. D. Rockwell, A. M., M. D., Prof. of Electro-Therapeutics in the N. Y. Post-Graduate Medical School and Hospital, etc. Third Edition, with Formulæ, 8 vo. pp. 282. New York; E. B. Treat & Co., 1891.

This work is one of a series, by the late Dr. Beard, upon the various manifestations of neurasthenia. Those who have not made themselves familiar with the relation existing between sexual disorders and neurasthenia will find the book both instructive and interesting. Discussing sexual topics, the author enlarges sufficiently for the information of the reader, without relating details which appeal only to a prurient and unwholesome curiosity. The style of the book is the reverse of concise, and it contains much matter which relates to neurasthenia in its general rather than in its sexual aspect. In a future edition the Editor might condense it very considerably with advantage.

The chapters discussing the relation of neurasthenia to insanity, the similarity in the symptoms of sexual neurasthenia in the two sexes, the relation, or rather in general the absence of relation between masturbation and genital disease and neurasthenia, are all interesting.

The author is a strong believer in treatment directed to the mind of the patient in combating his disorder, and in this regard all men of experience must agree with him. To remove illusions and despondency, and to supply the basis of hope, and healthy mental activity is undoubtedly almost the *sine qua non* in the successful management of the disease.

A judicious use of roborants, local and general sedatives, and electricity, is also insisted upon. A highly nutritious meat diet

is advised. The author's remarks on travel as a cure are of great interest. One needs a good constitution to travel with pleasure or with profit; and persons who are very sick are usually made worse. Especially the man of limited income, who can ill afford to lose time from business, and still less to incur the extraordinary expenses incident to travel, is seldom benefited. The mental anxieties brought about by travel and expense counterbalance the good received.

PERISCOPE.

THERAPEUTICS.

BROMIDE OF ETHYL IN EPILEPSY.

Dr. J. Donath, of Budapest, reports that when using bromide of ethyl in 0.1 gramme to 0.3 gramme doses, two or three times daily, in cases of epilepsy, the attacks become much milder and of shorter duration, indeed in some cases the improvement goes so far that the epileption attacks give way to mere muscular contractions without loss of consciousness. When exhibited internally, the drug is best given in suspension, as follows:

℞ Aethylein bromati..... grammes 5.0.
Ad. emuls. oleos..... grammes 100.0.
Ol. menth. piper..... gtt. ij.

M. Of this emulsion an adult should be given 30 drops two or three times a day, in a third of a tumblerful of water. This dose should be gradually increased to 70 drops (half a teaspoonful). Children of ten years of age should begin the treatment with doses of 10 or 20 drops.

Another formulæ is the following:

℞ Aethyleni bromati.....
Spirit. vini. rectificati..... aa, grammes 5.0.
Ol. menth. piper..... gtt. ij.

M. et Signa: 5 to 15 drops in a third of a glassful of milk two or three times daily.

Finally the drug may be advantageously administered in gelatin capsules, the following formulæ being used:

℞ Aethyleni bromati..... gtt. iij.
Ol. amygdal. dulc..... gtt. ij.
D. t. d. in caps. gelat. nos. 100

Signa: 2 to 4 capsules two or three times a day.

If there is an increase of the epileptiform attacks subcutaneous injections of the drug, best given in oily solution, are recommended.—*Münchener Med. Wochenschrift*, July 21, 1891.

THE ANALGESIC ACTION OF ANTIPYRETICS.

Dr. Bernheim, in the *Journal des Sciences Médicales de Lille*, draws attention to the analgesic action of various well-known antipyretics, including quinine, salicylic acid, antipyrin, antifebrin, phenacetin, etc.

When the beneficial effects of salicylic acid in articular rheumatism were first noted, the profession was prone to regard the remedy as a specific in this disease. Experience has, however, taught us that other antithermics as well, possess the same properties, that is to say, that they speedily relieve the articular pain, but without influencing the course of the disease, or exerting any true curative action. The connection between this antipyretic and analgesic action Bernheim essays to explain as follows: Fever occurs by the absorption of pyrogenous substances in the blood, or by the direct influence of the caloric center. Were our antithermics really capable of destroying these ferments in the blood, they would all exert an abortive action upon fevers. This is, however, not the case; indeed Bernheim even refuses to admit a specific action of quinine in malaria, but explains the checking of the morbid process, as a consequence of the absence of fever brought about by the drug's action, and asserts that the same end could be obtained by any other efficient antipyretic. He concludes, therefore, that the various antipyretic remedies, including quinine and salicylic acid, act only as such, in that they effect a cerebral center as antithermics, and that, on the contrary, their "antipyretic" action within the organism is not proved. Their analgesic action is very closely allied to their antithermic action. The former being caused by an action on the nervous centers. In fact, Bernheim has been able, by means of the æsthesiometer, to demonstrate a decreased sensibility of the skin, after the exhibition of quinine. Antipyretics, according to Bernheim, are only indicated in febrile diseases, when the height of the temperature is a menace to life, or when the lessening of an abnormally increased sensibility to pain is desired.

THYMOLO-ACETIC MERCURY IN THE TREATMENT OF SYPHILIS.

Dr. Migneco, in a recent number of the *Riforma Medica*, reports the results obtained in the Catania Clinic for Specific Diseases, with thymolo-acetic mercury (hydrargyrum thymolo-aceticum) in the treatment of syphilis. The remedy was administered by injection in the gluteal region, each time 75 milligrammes of the preparation as follows was injected:

℞ Hydrarg. thymolo-acet..... grammes 1.50.
Mucilag. gum. arab..... grammes 0.50.
Aquæ. dest..... grammes 20.0.
M.

In the eighteen reported cases, 250 injections were made. The average duration of the treatment was 33 days. An exact examination of the urine revealed the fact that mercury could be found in moderate quantities eight hours after an injection had been made. No local reaction was occasioned by the treatment. In comparison with bichloride of mercury it is far superior, although it is insoluble. Its action is much more prompt, and relapses apparently occur less frequently.

THE EMPLOYMENT OF EXALGINE IN INFANTILE THERAPEUTICS.

Dr. Moncorvo, in the *Bull. Thér.*, writes that his researches have been carried out on a total of twenty-one children from the age of one and a half years to twelve. In all these cases the exalgine was given to combat the element of pain, and he was obliged to confess that it much exceeded his expectations. In fact, in not a single case was he disappointed in its effects, and in every instance tolerance was perfect. There was no dizziness, ringing of the ears, or other unpleasants effects observed. Ordinarily the action of the drug was easily obtained, amelioration of the pain being generally established in an hour after the administration of the drug, not rarely it was quite abolished by that time.

He has often given the remedy many days in succession without the least sign of intolerance. In this way he has, in some of his patients, cured definitely, neuralgias and migraines which had dated from a long time back, and which resisted all other therapeutic agents.

The cases treated were as follows:

Neuralgia	2 cases.
Migraine	4 "
Otalgia	1 "
Odontalgia	2 "
Gastralgia	2 "
Hepatalgia	1 "
Pleurodynia	1 "
Dry Pleurisy	1 "
Articular Pain	2 "
Otitis	2 "
Torticollis	1 "
Pott's Disease	1 "
Lymphangitis and Arthritis	1 "
Total	21 cases.

In all his cases exalgine has, without exception, succeeded; that is to say, it always acted as an analgesic.

An apparently small dose of the drug will frequently triumph over the most tenacious pain, its analgesic power being very far from being in proportion to the size of the dose. From this point of view it appears to him to have a decided superiority to antipyrin, at least as regards children.

Great energy with the most complete innocuousness in moderate doses are the two points which recommend the use of this new agent in infantile therapeutics. It was usually given in solution with an agreeable tincture or essence containing a little alcohol. In the older cases it was sometimes given in wafer paper or capsules, and sometimes the dose was placed on the base of the tongue and washed down with a swallow of wine and water.

In regard to posology: Being somewhat timid with his first cases he began with 5 cgm. (¾ gr.) a day, but soon finding the tolerance absolute, he progressively augmented the dose up to 30 cgm. (4½ grs.) in the 24 hours, and this last dose has been as well supported as that of 5 cgm.

Considering the claims of exalgine as a nervine he mentions a case, previously published in THE REPORTER, of chorea in a child, eight years old, with very nervous antecedents. The chorea was very marked and the movements did not cease even during sleep. The dynamometric force was eight kilos for the right and six kilos for the left hand. Treatment consisted of 10 cgm. (1½ grs.) of exalgine twice daily with the result of the complete disappearance of the choreiform movements and great general improvement.

The following are the conclusions reached:

1. The great activity of exalgine as an analgesic has been, without exception, well demonstrated in these twenty-one diverse cases of pain.

2. In children complete tolerance has been established, and in no case was there any appearance of disagreeable results.

3. The initial dose should be five cgm. (¾ gr.) a day and rise progressively to 30 cgm. (4½ grs.) a day.

4. The drug may be given in any acceptable way—solution, capsule, or placed on the base of the tongue and washed down by a swallow of wine and water.

5. Exalgine surpasses antipyrin in activity, even in cases where the dose of the latter is five times as great.

6. The value of the drug as a nervine seems probable from the results obtained in one case of chorea.

SEA-SALT FOR INSECT BITES.

According to the *Deutsche Med. Wochenschrift*, sea-salt is an excellent application for the sting of bees, wasps, and other insects. The parts stung are rubbed with the salt dissolved in water. Pain and swelling disappear immediately, or, if the treatment is used at once, do not appear at all.

MEGHANICAL TREATMENT OF THE STOMACH.

Dr. Cseri (*Pest. Med. Chir.*) claims to have achieved the most brilliant results in the treatment of chronic digestive disorders by the employment of massage of the stomach, supplemented by regulation of diet.

The massage is practised while the stomach is full, *i. e.*, two or three hours after the chief meal. It consists in, for 10 or 15 minutes, rubbing and kneading the stomach, from the fundus toward the pylorus, at first gently, but afterward more forcibly. During the operation the patient lies on his back, having his kees drawn up, and breathing with his mouth open. After the stomach has been thoroughly kneaded, the massage is extended over the intestines.

The manipulation is not at all painful; it rather produces a feeling of warmth and comfort in the stomach. After several sittings, the feeling of depression and gastric oppression, common in dyspepsia, disappears.

Being practised two or three hours after meals, that is at a time when part of the ingesta are entering the duodenum, the massage assists the progress of the gastric contents, and also relieves the stomach somewhat of the gases which are present in it about this time. It tends, furthermore, to restore the impaired gastric peristalsis.

Cseri claims that massage widens the pylorus, so that it no longer resists the passage of the food, thus relieving the troublesome pains so common in nervous dyspepsia. But massage is useful in dilatation of the stomach, as well as in nervous dyspepsia.

Of course, ulcers and new growths of the stomach are a positive contraindication to the massage treatment.—*West. Med. Rev.*

TREATMENT OF TOXIC AMBLYOPIA.

The following summary of treatment of various toxic amblyopias is given by Chaltin (*L'Union Médicale*, May 2, 1891):

1. *Alcoholic Amblyopia.*—Immediate abstinence from alcoholic drink. Improve nutrition by tonics and diet, with bromides for cerebral excitation. Locally, instillations of pilocarpine. To increase nerve tone, strychnia hypodermically, electricity, hydrotherapy and ocular douches.

2. *Tobacco Amblyopia.*—Moderate use of tobacco; cigars to be smoked only two-thirds. If well-marked symptoms exist, withdraw tobacco altogether. Stimulate nutition. Inhalations of nitrite of amyl; subcutaneous injections of strychnia; continued currents; ocular douches.

3. *Saturnine Amblyopia.*—Treatment of lead poisoning; sulphur baths, iodide of potassium, purgatives, tonic regimen.

4. *Quinine Amblyopia.*—Purgatives and diuretics, inhalations of nitrite of amyl, injections of strychnia, and electricity.

5. *Antipyrin Amblyopia.*—Withdrawal of the drug has proved sufficient.

6. *Sulphide of Carbon Amblyopia.*—Abandonment of profession. Tonics, iron, quinine, strychnia subcutaneously, inhalations of nitrite of amyl, and electricity.—*Union Med. Mag.*

TURPENTINE AS A GERMICIDE AND ANTISEPTIC.

Although the oil of turpentine (*Oleum Terebinthinæ*, U. S. P.) is not unknown as an antiseptic and germicide, its insolubility in water and its irritating properties have hitherto made its use impracticable. That it has its special uses, however, in this connection, I have had abundant testimony. It is a well-known fact among naturalists that if the air of a cabinet be impregnated with the vapor of turpentine, the specimens are safe from the ravages of moths and other intruders, so long as this condition of the air of the cabinet remains. Having learned the advantage of turpentine in preserving entomological specimens, I concluded to try its germicidal properties in the cases containing surgical instruments. A bacteriological examination of the cases, made four weeks afterward and compared with the examination of cases not provided with turpentine, convinced me of its efficacy, and I soon afterward applied the same principle to drawers containing towels, gauze, bandages, etc. The method is simple. The turpentine is placed in flat large-mouthed bottles at the bottom of each case or drawer, the volatility of the turpentine causing the vapor to impregnate the surrounding air. Of late I have also placed my surgical instruments, the night preceding an operation, in a flat dish containing oil of turpentine. The instruments are completely sterilized, are not injured by

the submersion, and are easily dried by a piece of sterilized gauze or towel. The characteristic odor of turpentine can be removed by ether. The cheapness of turpentine and the ease with which it may always be obtained, added to its special adaptability in preserving the aseptic condition of instruments, bandages, etc., by its vapor, may make it a valuable addition to the list of our antiseptics and germicides. I have also used benzole in the above manner. Its greater volatility gives it a more rapid germicidal action than turpentine, but its great inflammability admonishes caution in its use.—*Medical News.*

THE TREATMENT OF ANTHRAX.

Prof. Kosturin and Dr. Krainski publish in the *Vrach*, in the form of a preliminary note, an account of some experiments they have made on the treatment of Siberian sore or malignant anthrax by means of the toxines of putrefying fluids. They had previously published somewhat similar researches on the effect of certain toxines on tuberculosis, and felt sufficiently encouraged by their results to proceed with the experiments on anthrax. Most of these were carried out on rabbits. The anthrax virus was obtained from a professor of the veterinary institute in the form of a mother culture, from which fresh cultures were obtained as required by sowings on meat-peptone agar, and mixture with sterilized broth, until the latter became quite turbid. About half a cubic centimetre of this injected under a rabbit's skin always caused the animal's death in from thirty-five to fifty-five hours. The substance used as an antagonist to this virus was the extract or broth of fresh meat, allowed to putrefy at a temperature of 16° C. for from fifteen to forty-five days without the free access of air. This putrefying broth when injected under the skin of a healthy rabbit in the proportion of 1–850th of the animal's weight produced a marked rise of temperature, 40.8° C. being the maximum, which lasted for about two days, after which the normal condition was regained. The general result of the experiment was that the injection of putrefying broth five or six hours after the introduction of anthrax virus in all cases retarded death, and in some, especially where the dose of virus had been a small one, and when that of the remedy was repeated two or three times at intervals of a few hours, entirely prevented a fatal result, the animals recovering completely. Two experiments were made with sheep, 0.2 cc. of the culture of the anthrax virus being introduced into each and also into two rabbits for purposes of comparison. Three hours afterwards sheep No. 1 was given 0.5 grm. putrefying infusion of meat a fortnight old, and sheep No. 2 a similar quantity of broth a fortnight old. Rabbit No. 1 was not treated; rabbit No. 2 was given 0.1 grm. of the broth. The results were as follows: rabbit No. 1 died in 60 hours, rabbit No. 2 in 136 hours, and sheep No. 1 in 100 hours, and sheep No. 2 in 66 hours. The necropsy of all the animals showed that they had died from anthrax. The unsatisfactory result here is ascribed by the authors to the very small quantity of putrefying broth injected. In the case of rabbit No. 2 the good effects of the treatment are apparent, but as it was kept in the same hutch as No. 1 it is very probable that it became reinfected. From this and some other experiments it was evident that animals undergoing treatment must be kept in separate cages. It is a pity that further experiments were not made with sheep; still, enough has been done to indicate a possibility of success, especially as the remedy does not appear to be of itself a very serious source of danger. Some attempts were made to test the effects of pure cultures of sarcinæ and of putrefactive bacteria, but entirely negative results were obtained; consequently the authors think that the antagonistic effects of putrefying broth or infusion of meat to anthrax, and perhaps other infectious diseases, do not depend on the bacteria contained in them, but rather in toxins or chemical products of putrefaction. Another important observation was made—viz., that when the putrefaction was allowed to go on with free access of air, the product had little or no power of arresting the progress of anthrax. In order to show the antagonism of putrefaction extracts to anthrax, cultures of the latter were mixed with putrefying broth, and though the anthrax still continued to multiply just as it ordinarily does, injections of this culture were found to be innocuous. The authors are now engaged in testing the effect of putrefaction toxines on the diphtheritic process, and a further paper on the subject may be looked for.—*Lancet.*

MEDICINE.

THE CAUSE OF ANÆMIC HEART-MURMURS.

Anæmic heart-murmurs have been the subject of various ingenious explanations.

The one given by the best text-books for a long time was a morbid condition of the blood, an explanation good as far as it went, but one that did not go very far. Recent investigations make it probable that these murmurs are due to a weakness of the papillary muscles of the heart, by which the curtains of the mitral and tricuspid valves are relaxed and so give rise to an adventitious sound. Experiments show that when in the death of an animal the heart gradually fails, the contraction of the papillary muscles lags more and more behind that of the ventricular wall, and ceases entirely some time before the rest of the heart stops beating. On account of their situation the papillary muscles are the part of the heart wall likely first to feel the effects of a decreased blood supply in anæmia; corroborative evidence of this theory is found in the fact that in acute anæmia and other conditions of sudden and great weakness, a heart-murmur is often to be detected, which disappears, upon compression of the iliac vessels or abdominal aorta, or upon the administration of alcohol or digitalis to strengthen the heart beat.—*Northwestern Lancet.*

HIGH BODILY TEMPERATURES.

In the *Memphis Med. Monthly*, June, 1891, Dr. Jones records the case of a bright girl, æt. 14, primarily affected with tonsillitis, in whom the thermometer at different times registered 97°, 99.5°, 103°, 105°, 109, 112°, 115°, 135°, 150°, 158°. Respiration at no time much accelerated—while the hyprexia lasts there is always nausea and a sense of oppression in the chest.

The circulation is never accelerated beyond 10 or 12 beats to the minute, being usually 85. It has not recently been above 100, nor at any time beyond 120. Patient recovered.

In *The Journal of American Medical Association* Dr. W. J. Galbraith relates the case of a married woman æt. 26, in whom the temperature within a short period registered at different times 95.8°, 107°, 112°, 117°, 125°, 137°, 145°, 151° observed by her physician—while the record of the nurse showed it to have reached 171°. The patient was suffering from peritonitis. Recovering.

Dr. Crofford saw a temperature of 108.5° in a case of sun-stroke. Patient recovered.

Dr. Saunders had seen a temperature of 108° in yellow fever—110° in sun-stroke. Both patients died.

Dr. Williams saw a temperature of 111° in the rectum after death from remittent fever.

Dr. Donkin (*British Med. Journal*, 1889) records an instance of 110°, 112.6°. Once the thermometer rose to 107.2° in right axilla. Five minutes later it was only 98.6°.

Mr. J. W. Peale (*Chir. Trans.*, 1875) reports the case of a young lady having suffered from the fracture of several ribs: two months later the thermometer one day registered 110° and afterwards 122°. Ultimately regained fair health.

Dr. Moxon, (*Guy's Hosp. Reports*, 1879) æt. 22, affected with phthisis, in the ward for ten months. Thermometer rose to 107.4° and one hour later 110.8°, suffering from dyspnœa. Next morning it was 99.8°. On one occasion later it rose to 114° in axilla. Died of lung trouble March, 1880. —*Virginia Medical Monthly.*

THE CARE OF THE CHRONIC INSANE.

In viewing the advantages of the Belgian colony of the insane at Gheel, the question arises, Why should the chronic insane of our country be housed and cared for at a *per capita* cost infinitely in excess of what they have been accustomed to all their lives, and whether, with simpler, plainer homes, familiar occupations and larger freedom, this class would not only be happier, but better off in every way, as well as less expense to the State? Why should the legitimate work of a hospital be hampered, as it undoubtedly is, by the vast accumulation of chronic cases whose care involves an immense amount of work that is non professional? Cannot these cases be just as well cared for in asylums built at less expense, or placed in homes whenever feasible, rather than be permitted to encumber the wards and hinder the work of a hospital in which recent cases demand and should have, every care and all the skill science has at its command? Might there not be greater probabilities in the way of recoveries if this were true?

I simply question, for I know how the life of every hospital physician is burdened with petty details, and how difficult it is under such circumstances to attain to the highest professional ability. For many years the plan for the care of the insane which has recommended itself to me has been that of a hospital to which patients should be committed, and from which they should be drafted, after their condition is determined, into simple, plain, inexpensive cottages or homes, such as the State could best furnish, there to

be cared for well and kindly under medical as well as State supervision, but at a minimum cost, as regards their housing, while in the hospital should be kept those who needed the best of skilled medical care and trained attendance. From this hospital, in all cases where such a course would be advisable, transfer should be made to a convalescent home, and so into the world again.

The mammoth asylums, to which year after year wings are added until no man can have an adequate conception of the needs of his patients, and especially no idea of their pathological condition, are a blot on the intelligence of the age.—*Margaret A. Cleaves, M. D., in the "Journal of Mental Science."*

A CASE OF THE ATAXIC FORM OF ALCOHOLIC PERIPHERAL NEURITIS.

Alcoholic Ataxia :—Ataxic gait; inability to stand with eyes shut; loss of knee jerks; girdle pain; recovery.

T. G., 31, clerk, consulted me on the 2d March, 1889, complaining of pains in the calves of his legs, which were worse on walking about. His illness began on February 18th.

Previous History.—He had never had any serious illness or met with a severe accident, though he had twice fallen from his bicycle and cut his face. Denied having had syphilis or any venereal disease. He had had gout, and used to keep a public house. According to his wife and his employer he had been in the habit of "boosing" himself with beer daily. Took no breakfast, but bread and cheese or ham and a pint of ale at 11 o'clock.

Family History.—His father had gout and died of it. His mother was living, aged 62, in indifferent health; 12 or 14 years ago she was insane. He had one brother and one sister alive and in good health.

History of Present Attack.—His wife and his employer concurred in stating that for about a fortnight they had noticed his memory had failed him. He forgot to do what he was told, and yesterday he imagined he had been at work the day before, although he had not been from home for several days. On Sunday, February 17th, he was in his usual bodily health and took a long walk with a friend. On Monday morning he started to walk to his office and found great difficulty in getting there. The distance was about a mile and the snow was on the ground; but he did not get his feet cold or wet. For the last two days he had had a sense of tightness round the waist (girdle pain.) His wife said he had complained to her of seeing double.

Present Condition.—Patient came stumbling into my room, and very nearly fell; he could not stand steadily with his feet together, and fell as soon as he closed his eyes. The knee jerks were entirely gone. The pupil reflexes and ophthalmoscopic appearance were normal. There were no lightning pains; girdle pain already referred to had been present for two days.

His mental condition was not obviously abnormal, but his wife said that he asked her the same question repeatedly, and she was decidedly of opinion that his mind was affected. There does not seem to have been any moral change. There was no muscular wasting or obvious paralysis. No œdema or eruption on skin. Physical signs normal. Bowels regular.

Urine pale, clear, acid, 1010, contained a trace of albumen, no sugar.

He was ordered hypodermic injections of strychnine, and to become a total abstainer. Owing to difficulties, the strychnine was administered by the mouth and the abstinence maintained till lately, when he had been taking against advice, a little claret.

October 31st.—Patient came to see me again. He could walk quite well; stood quite steadily with his eyes shut and feet together; no girdle pain; knee jerks present. His urine still contained a haze of albumen. The pains in the legs were better.

Remarks.—These cases are sufficiently uncommon to make this typical example worth publishing.

The diagnosis was made on two grounds: 1, the very rapid onset, and 2, the history of alcoholism. It is said that the absence of myosis, of the Argyll-Robertson pupil, of arthropathies, and of visceral crisis are of diagnostic value, but all of these are absent in many cases of typical locomotor ataxia (sclerosis of the postero-external columns.) The loss of memory was another point in favor of alcoholic ataxia, but again, it is not very uncommon to have mental symptoms complicating those cases of locomotor ataxia, which later develop into general paralysis. —*Dr. Robert Saundry, in Birmingham Med. Rev.*

NEURITIS DUE TO POISONING BY ARSENIC.

Dr. E. G. Cutler, in the *Boston Medical and Surgical Journal*, reports a case of neuritis due to poisoning by arsenic. The patient was in the habit of placing in his mouth a number of green paper labels—which were proven by analysis to contain

arsenic—in connection with his employment. The earliest symptoms were numbness and pricking of the fingers, with weakness of the right hand. The weakness in a few days extended to the other limbs, and was accompanied by general soreness and cramps in the calf muscles. The grasp was feeble and the gait shuffling; knee-jerks absent, superficial reflexes weakened; no dyspepsia or urinary trouble; bowels rather constipated; no headache or disturbance of vision. The patient recovered under the administration of iodide of potassium, sponging with salt water, and subsequent daily rubbing with ice.—*Practitioner*, May 1891.

CENTRIFUGAL FORCE IN CLINICAL DIAGNOSIS.

In the *Verein für Innere Medizin* in Berlin on 20th April, Dr. Litten gave an account of a method which had been devised for the adaptation to clinical medicine of the uses of centrifugal force, which has hitherto been applied only by physiologists. The usual methods of filtering, and of allowing fluids to settle, have often certain manifest disadvantages, and these are thus overcome. Special reference is made to examination of the urine, and the ease with which tube-casts, tubercular bacilli and other micro-organisms, blood-corpuscles, &c., may by this means be detected. It is applicable, also, to the investigation of fluid from echinococcus cysts and of pleural effusions. The advantages with regard to the latter are thus stated:

"1. Easier demonstration of tubercular bacilli.

"2. Constant demonstration of blood in clear pleuritic effusions.

"3. Avoidance of the coagulation of the exudation.

"The last is especially important; for, as is known, there are some pleuritic exudations which coagulate immediately, so that microscopic examination of them is impossible. If one warms the glass of the centrifugal machine, and allows the fluid to run into it, and sets it at once in motion, the corpuscular elements are obtained before coagulation occurs."—*Deut. Med. Zeitung*, 4th May, 1891.

SURGERY.

EXTIRPATION OF THE LARYNX.

(LARYNGOTOMY.)

Professor Dr. Tauber, of Warschau, has recently collected all the reliable and available histories of extirpations of the larynx. The number collected from all sources is 163 operations; these Tauber has classified as follows: First, regarding the countries in which they were performed.

In	Germany	48 times.
"	Russia	20 "
"	England	19 "
"	Austria	17 "
"	Italy	17 "
"	France	11 "
"	America	11 "
"	Switzerland	8 "
"	Denmark	8 "
"	Belgium	3 "
"	Spain	1 time.

Second, when tabulating the cases according to the age of the patient operated upon, Tauber obtains the following figures:

Up to 20 years of age		3 cases.
From 20 to 30		9 "
"	30 to 40	15 "
"	40 to 50	40 "
"	50 to 60	50 "
"	60 to 70	13 "
"	70 to 80	8 "

Third, regarding the results of the operation Tauber tabulates these into four groups.

Group 1. Cases in which the fatal issue was directly due to the operative procedure ("absolutely fatal cases")—67, or 41.1 per cent. of the entire number.

Group 2. This group includes what Tauber terms the "absolutely successful cases," and among these he includes all those who had not suffered a relapse three years after the operation—13, or 7.9 per cent. of all operated upon.

Group 3. This group includes such cases, which although recovering from the operation, suffered a relapse and succumbed inside of a year after the operation; these are called "relatively fatal cases" by Tauber—47, or 28.8 per cent.

Group 4. Herein are finally included such cases which, while recovering from the effects of the operation and remaining without relapse for one year, could not be kept under observation for a sufficiently long period to enable them to be placed with group 2; these Tauber calls "relatively successful cases"—32, or 19.6 per cent.

When the first group is added to the third, and the second group added to the fourth, a very positive but also a very discouraging result will be obtained; the fatal cases mount up to 69.9 per cent. and the successful cases only to 27.5 per cent. In other words, under the most favorable circumstances to

the patient, the operation yields at best only 7.9 per cent of permanent recoveries.

In view of these facts, Tauber is of the opinion that the operation may be ranked with those of which that peerless operator, Stromeyer, has said: "Humanity will lose nothing if such operations fall into disuse, and surgery gains no honor by their performance."—*Deutsche Medizinal-Zeitung*, July 20, 1891.

TREATMENT OF CARBUNCLES BY EXTIRPATION.

Every year a number of lives are sacrificed owing to our faulty means of dealing with carbuncles. When these are treated merely with free incisions, the patient is doomed to a long period of confinement, the skin frequently becomes gangrenous to a large extent, and the final result is at best an unsightly scar. In order to avoid all these unpleasant sequellæ Dr. Riedel, of Jena, reports to the *Deutsche Medicinische Wochenschrift*, the value of a complete extirpation. His opinions as to the value of the procedure are based upon an extensive and most successful application of the method. The operation is conducted as follows: A cruciform incision is made across the seat of the carbuncle, and stretching well into the healthy tissue. The four triangular flaps are then dissected back until the healthy tissue is reached, and the indurated portion extirpated. The usually copious hæmorrhage is controlled by compression. A loose tampon of iodoform gauze is then inserted in the wound, the skin having been brought back into position. The following day the iodoform tampon is removed and an ordinary antiseptic dressing applied. The wound will heal rapidly, and the loss of substance from the center will replace itself very quickly.

The advantages of the method are that by the complete removal of all infiltrated tissue, the dangers of subsequent gangrenous or septic poisoning are completely removed; the scar, also, will be slight compared with that obtained by the method of simple free incisions.

NERVE-COMPRESSION DUE TO CALLUS.

In the *Gazette Hebdomadaire de Médicine et de Chirurgie*, March 14, 1891, there is an exhaustive paper on this subject that contains much of interest by the late Dr. Trelat. Nerve abnormities following fractures are numerous. Sometimes the cause of the fracture is also the origin of the nerve injury. Again, a spicula of broken bone may lacerate or run through a nerve, or the nerve substance may be imprisoned by the reduction of the fracture. All these possibilities are excluded in the present consideration of nerve-compression.

The author cites a case illustrating the good effects of surgical interference, in which there was compression of the radial nerve following the reduction of a fracture of the humerus in a child of eight. After perfect union was established, there remained a paralysis and atrophy of the extensors and an intensely painful spot just underneath and in front of the epicondyle. There was an extensive and deforming callus at the seat of the fracture. Liberation of the nerve resulted in complete use and health of the arm, the child later as a youth winning prizes in athletic sports.

A similar paralysis in a man of forty was treated by the knife, with the result of retarding union of the bone and inducing an abscess at the point of incision. Muscular movements were recovered in time. Paralysis in such cases is not immediate, appearing only one, two or three months after the accident, and progressing slowly as different branches of special nerve-trunks are involved. There is rapid muscular atrophy and sometimes altered sensation. Surgery alone has power to relieve this condition, which in itself is sufficiently serious, the nerve-degeneration being rapid and the compression often setting up an ascending neuritis or myelitis.

Pressure on a nerve may come from underneath as well as from imprisonment, the mass of callus raising and stretching the nerve substance or partially inclosing it in a little channel of osteo-fibrous material or of pure bone. The order of compression depends largely upon the locality of the fracture. In case of pressure from underneath, when the nerve is raised up, instead of being smooth, round, brilliant and glistening, the nerve is flattened, grayish, cloudy and often irregular in outline. When imprisoned by osteo-fibrous material, the nerve may retain its natural rotundity, but has a shrunken appearance within the callus, and presents just beyond it a matty ganglionic swelling analogous to nerve-proliferation in the stump of an amputated limb. The nerve in this instance has the general appearance of a little fibrous cord. The histological manifestation is similar to that resulting from division of a nerve, with this exception: all the fibres in the severed ends of a divided nerve undergo simultaneous degeneration. Not so in degeneration due to this osteo-

fibrous compression. One fibre after another is attacked. There is a difference in time, but not in kind, in these processes.

Age is an important factor in the regeneration of nerve-tissue, the best results in surgery like the foregoing being obtained in young subjects. Crushing the callus is insufficient to afford relief. It is imperative to cut down on the nerve, expose it to view, find out the exact cause of compression, and remove it speedily. The difficulty of the operation—Esmarch's bandage should always be used—is chiefly due to changes in anatomical distribution caused by the callus itself. To avoid bewilderment and loss of time, a long incision should be made and the nerve first traced somewhere in its course where its position is normal, instead of beginning to follow it at or too near the callus. If the nerve is simply lodged under a fibrous cover, the bistoury will serve to liberate it. But if true bone imprisons it, a portion must be chiseled away. The callus must then be leveled and made smooth.

In certain instances it may be necessary to suture the periosteal fibres to prevent future implication of the nerve, or to attach the nerve itself to some neighboring muscle. But such necessities have not yet arisen in the author's practice.—*Jour. Nerv. and Ment. Dis.*

TREATMENT OF CHRONIC INFLAMMATION.

To remove the products of inflammation when occurring in orchitis, epididymitis, the lymphatic glands, or the articulations, Dr. Land (*Revue Internationale de Bibliographie* March 25, 1891) recommends the use of hot compresses, stating that this measure has always given him the best results even when other remedies had proved inefficacious. These compresses should be applied frequently for ten or fifteen minutes several times during the day, taking care, however, that during the applications one compress should not be allowed to remain more than two minutes. The compresses should be immersed with water at a temperature from 104° to 140° F. They should not, however, be used during the acute stages of inflammation.—*Ther. Gaz.*

THE DIAGNOSIS OF FOREIGN BODIES IN THE BRONCHI.

To ascertain which bronchus is the seat of a foreign body is not unusally a matter of difficulty, if we avail ourselves of the assistance afforded by auscultation. If the foreign body exactly fills the lumen of the bronchus, this will be indicated by the absence of respiratory sounds on the corresponding side, while, if the obstruction is incomplete, the sounds will be exaggerated and assume a hissing character. The data furnished by auscultation, however valuable they may prove in the case of a solid body, may leave us in the lurch if we have to deal with a hollow body, such as a bead. This is strikingly illustrated by a case recently reported by Dr. Sprengel, in the *Centralblatt für Chirurgie.* The patient, a child five years old, suffered from severe dyspnœa, resulting from lodgment of a foreign body in the throat. Auscultation revealed normal respiratory sounds on the right side, while on the left they were almost imperceptible. A diagnosis of foreign body in the left bronchus was made and tracheotomy performed; but, after the incision had been enlarged, the bead was seen distinctly lying in the trachea, the lumen of which it filled completely. It was turned with forceps and then ejected by coughing. To explain the auscultatory signs, the author assumes that the bead lay in such a position as to prevent the passage of air into the left bronchus, while admitting it to the right through its aperture. This case is an exceedingly valuable contribution to the literature of foreign bodies in the air passages, since it demonstrates that when a hollow body is lodged at the lower end of the trachea, the physical signs may differ essentially from those produced by a solid body, and may lead us to infer that it is situated in a bronchus.—*Internat. Jour. Surg.*

THE ABORTIVE TREATMENT OF SYPHILIS.

The loathsome nature of pox; the great difficulty and uncertainty of thoroughly eradicating the disease from the system, when once firmly established, has made the dream of its early cure a pleasing one. The abortion of gonorrhœa has received a comparatively greater amount of attention, but when we stop to consider the dangers attending the present methods deemed necessary to effect this purpose, the freedom from systematic infection, and the possibility of bringing about a cure within a reasonably short time by safer means, we realize how much more to be desired would be a sure method of stopping short a syphilitic infection. For two hundred years excision of the chancre has been practised, in the hope, at times apparently realized, that in removing the initial

lesion of the disease the system would escape. Strange as it may seem, after these two hundred years, we cannot yet say just what valuation should be placed upon the method. Some observers have claimed good results, while others have seen only failures follow their efforts. At the International Congress in Berlin, Professor Leloir presented a contribution to the subject, which is of interest as coming from one who has had considerable experience in the matter. As early as 1844 he advised excision: 1. If the chancre is just beginning; 2. if the chancre is so situated that an excision can be removed readily and without danger; 3. if the chancre is not already accompanied by enlarged glands; 4. if it is single, or, at least, easily to be removed in its totality; 5. if the individual is entirely free from such diseases as diabetes, albuminuria, etc. These rules for undertaking the excision were given three years after the author had expressed his belief in the inutility of the operation. His subsequent experience has, however, led him to regard the success of abortive effort as a possibility. He relates a case in which a lesion believed by him to be a true chancre was excised in 1884 (the woman from whom it was contracted being under his care, and surely syphilitic.) The patient was kept under constant observation for about four years without treatment and never showed any further signs of syphilis. Leuger has communicated a similar instance.

Mauriac as early as 1881 expressed his belief in the inutility of this attempted abortion, claiming that excision does not attenuate the near or remote consequences of the intoxication.

Wickham points out quite justly that a well-established true chancre may at times not be followed by secondary and tertiary accidents, or may be accompanied by very discrete lesions only, and hence an error may enter into deductions drawn from the patient's freedom from symptoms after excision. It would, however, not be at all likely that any large number of these mild cases would occur in a given series of excisions.

While it is too much at the present time to claim with Diday that if the excision does not succeed it is because it was not done completely enough, it would still be well for future investigators to make sure that they operate early enough, and include in their cut sufficient surrounding tissue to make it reasonably certain that any outlying cells, bacilli, or virus, which might still be harmful to the system have been removed along with the indurated lesion.—*Med. Record.*

GYNÆCOLOGY.

THE REMOTE EFFECTS OF REMOVAL OF THE ANNEXÆ IN NON-NEOPLASTIC AFFECTIONS OF THE UTERUS.

At the French Surgical Congress Spencer Wells said he concurred in Battey's opinion that, in America, the abuse of öophorectomy, especially in nervous cases, has become really deplorable. He believes with Battey that neoplasms of the uterus, or of its annexæ, often furnish indications for this operation, which non-neoplastic affections rarely do. Oophorectomy, however, may be indicated either by dysmenorrhœa or by ovarian neuralgia which has defied all other treatment and threatens either life or reason. In such cases he has witnessed very gratifying results. But it must not be forgotten that, after removal of the ovaries, menstruation may not be arrested; even menorrhagia may occur and suffering may increase and the general health deteriorate. In a certain, as yet indeterminate, ratio of cases hæmatocele may result or recur. In other cases, the knowledge of their sterility has produced a grave disturbance of the mental balance. He does not share the opinion of certain operators as to the alleged frequency of tubal affections and their incurability without operation. Lawson Tait divides his cases somewhat arbitrarily into three classes: Those in which öophrectomy is done: (1) Because either of some uterine lesion or of the symptoms resulting from it. (2) Because of troubles arising from inflammatory diseases of the annexæ. (3) Because of various nervous disturbances dependent on menstruation. The results obtained in the first category are as follows: Of 274 cases of myomata, 6 were immediately fatal, 8 unsatisfactory, and 257 completely cured—that is, either the symptoms ceased completely, and either the tumor disappeared entirely or ceased growing, or the principal symptom of the disease was completely and definitely relieved. Of this series, to his knowledge, but a single case has been sent to an insane asylum, and this one was evidently insane before the operation. In three other cases mania was completely cured by the physical relief afforded by the operation. A number of cases of eccentricity were likewise relieved. Marked non-development of the uterus associated with normal tubes and ovaries sometimes requires removal of the annexæ for the relief of the intolerable suffering caused by abortive efforts of the uterus to perform its periodical functions.

The results of operation in these cases differ in no wise from those already described. In the second class of cases Mr. Tait has not found time to tabulate his results, and therefore is unable to speak so dogmatically. In this class of cases, however, the underlying conditions are quite different from those of the first class, and the operation itself presents indefinite and indefinable differences of detail. Although often taxing the resources of the surgeon to the utmost, the operation should never be abandoned; contrary to the opinion of many competent surgeons, it may be completed in every case. Mr. Tait is never deterred by fear of rupture, either of the bladder or of the bowel, from breaking up adhesions that may exist between these viscera and an ovary or even a tube. He has seen urinary and intestinal fistulæ form and persist for several months, but has always succeeded in finally curing them. Deep, suppurating sinuses may occur in 5 per cent. of the cases and persist indefinitely; at least until treated by what Mr. Tait calls "circular drainage." The results in these cases, especially in the graver ones, are slower than in myomata, for here Tait reopened the abdomen and found new cysts formed about the stump of the Fallopian tube. These he removed. One of the cases died, but in the others relief was complete and immediate. The remote effects of this operation may be obtained in such cases without arrest of menstruation; and in some of Tait's most successful cases the menstrual period has not been influenced in any way. In 4 or 5 per cent. of the cases belonging to the second category recovery may be delayed by an effusion of blood into the folds of the broad ligament. These effusions have always taken place either during menstruation or during a seeming menstrual molimen. In most cases these effusions are small and disappear rapidly. The remote results in this category differ very little from those in the first category, with one exception, and that of sufficient importance to deserve especial mention. In chronic diseases of the annexæ one of the most distressing symptoms is inability to endure marital relations. In most cases requiring surgical intervention such relations have been suspended for a long period, but may generally be resumed within a few months after removal of the appendages. As to the third series, Mr. Tait confesses that he has hitherto observed what seems to him now excessive prudence. Experience in a few well-marked cases of menstrual epilepsy inclines him to a more favorable opinion than he formerly entertained. He reports his first 2 cases. In both the result was brilliant and permanent. —*Gazette des Hopitaux.*

CURETTING OF THE UTERUS FOR METRORRHAGIA IN A YOUNG GIRL.

Dr. J. J. Conner, in the *Inter. Jour. Surg.*, reaches the following conclusions:

1. I consider curetting of the uterus a safe operative procedure when performed with reasonable care and skill.

2. It is one that may be undertaken with good results by any general practitioner who is competent to attend the ordinary cases of obstretric and gynæcological practice.

3. It will often rapidly cure metrorrhagia when drugs fail.

4. In performing the operation both the dull and sharp instruments are required.

5. Notwithstanding that Emmett says that "the ingenuity of man has never devised an instrument capable of doing more harm," I regard the sharp curette of Sims a useful and necessary instrument, and capable of doing just what it was devised to do, and what no other instrument can do, viz., of shaving off those hard, tough, gristly granulations from the uterine mucous membrane. It was devised by a *surgeon* for the use of *surgeons*, and any one who does not possess sufficient skill should leave it severely alone. True, you cannot *see* it work, but you can *feel* it. Of course, not all cases will need the sharp curette.

6. I would call attention to the youth of this patient, and the entire absence of pain during the whole course of her trouble.

7. I consider this case an example of the triumphs of antiseptic surgery in the hands of a common country practitioner.

OBSTETRICS.

FRACTURES OF THE LEG DURING PARTURITION.

Bergner reports five cases (*Rev. Mens. des Mal. de l'Enf.*, March, 1891,) in children from six months to three years of age, of fracture of the leg occurring during parturition. The fractures were followed by pseudo-arthroses, and the cases were treated by resection. The fracture, which is usually located at the lower half of the tibia and fibula, is caused by traction upon the legs at the time of birth. The mechanism is that of indirect fractures, and the fractures present all the characteristic signs of indirect frac-

ures of the tibia and fibula. The question arises: Why does pseudo-arthrosis instead of consolidation occur in these cases? In the cases under consideration there were no morbid, constitutional conditions, hence the cause must be sought in the lesion itself. Of course, defective treatment, or rather an absence of treatment, was primarily at fault, for the children went a long time before it was apparent that any fracture existed. The oblique direction of the fracture, the angle formed by the fragment, and the interposition of the soft parts between the fragments, all are favorable to a pseudo-arthrosis in preference to the customary callus. In all the author's cases there was extreme atrophy of the fragments, which in some of the cases were barely in contact at their smooth ends. If the pseudo-arthrosis had existed some time, the limb would be found entirely atrophied, especially in the segment underlying the pseudo-arthrosis.

The shortening varied from five to fifteen centimetres. The impression of the sole of the foot on the diseased side was narrower than on the healthy side. The author's operation for these cases was an osteotomy. The pseudo-arthrosis was exposed, the fragments resected, and united by suture. An antiseptic dressing was applied and subsequently a plaster of Paris bandage. None of the cases were cured, though the operation was done three times for one of them. These unfavorable results were attributed to the antiseptic method which moderates the inflammatory re-action, and so prevents the formation of a solid callus. The following propositions are offered by the author for future cases: (1) Simple oblique osteotomy or cuneiform osteotomy should be replaced by longitudinal oblique osteotomy or oblique resection of the fragments. (2) Suture and union of the wound by first intention should not be desired, the bones having been brought together and sutured. In this way an intense local reaction will be obtained favorable to the osteoplastic activity of the periosteum. (3) Plaster bandages should be given up. (4) A fracture having been recognized, it should be treated in a proper manner immediately after its occurrence, or as soon afterwards as a diagnosis can be made.—*Archives Pædiatrics.*

PRECIPITATE LABOR.

Dr. P. Strassmann (*Deutsche med. Wochenschrift*, No. 44, 1891) observes that this term has been indifferently applied to rapid labor in the purest physiological sense, and also to cases where the patient, through ignorance, has been suddenly seized with labor pains, and, not knowing their signification, has allowed birth to occur without necessary assistance. Even concealed labor, with criminal intent, has been ranked as "precipitate," and, for obvious reasons, the clinical history of true precipitate labor is of importance in medical jurisprudence. Thus, Dr. Strassmann refers to a case in the Giessen Maternity where a woman was very suddenly delivered without knowing her condition. In a second case, bearing-down pains were taken for a desire to defæcate. The patient therefore sat over a pail, into which the child was born. In a third the patient was asleep until ten minutes before delivery. A precipitate twin-labor is also recorded. As universally admitted, precipitate labor is due either to a large pelvis and readily dilatable soft-parts or to vigorous action of the uterine muscle. The children are, on the average, smaller and lighter than infants born in labor of natural length. Though the maternal pelvis is usually capacious Dr. Strassman has observed one case of precipitate labor where the pelvis was of the flat rickety type. The risk to the child's life is slight, though trifling damage to the cranium is frequent. Fatal hæmorrhage from the cord is rare, in consequence of the low blood pressure in the funis after the establishment of respiration; besides, the cord is often torn through. Ruptured perineum is the commonest injury to the mother in these cases. Flooding after delivery is rare, and in the Giessen Maternity the puerperium was usually normal. There was little or no fever.—*Brit. Med. Jour.*

THE INFLUENCE OF LIGHT UPON PREGNANCY AND UPON THE FŒTUS.

As a result of experiments with mice, Vicarelli (*Annal. di Ostetrica, etc.*, Dec., 1890) found that the absence of light had a tendency to cause early abortion, but did not otherwise modify the course of pregnancy. If the mother was kept in the dark during pregnancy, the development of the offspring was most retarded; the retardation was less decided if, after birth, the offspring were no longer kept in the dark; and least in the case of offspring kept in the dark after birth, the mother having passed pregnancy in the light. The highest degree of development was attained if the mother and the offspring after birth lived in the light.—*Centralbl. f. Gynäkol.*

PÆDIATRICS.

TREATMENT OF ENCEPHALOCELE.

M. A. Broca contributes (*Rev. des Maladies de l' Enfance*, June, 1891) a note on the treatment of encephalocele. He starts with the proposition that patients with encephalocele are doomed to an early death or to become idiots. He utterly condemns treatment by pressure or by puncture and injections of iodine; in those children who escape suppurative meningitis after such treatment the tumor very seldom diminishes, much less disappears. He recommends excision. The base of the tumor is reached by a double incision leaving two small flaps to be used for closing the wound. He condemns incision of the tumor as liable to lead to serious consequences owing to subsequent draining away of cerebro-spinal fluid; he prefers to place a ligature around the base at the deepest point which can be reached. He does not speak decidedly as to the necessity of suturing the periosteum. He thinks that the fear of removing important quantities of the cerebrum may be set aside. The substance of the encephalocele is not often a portion of the cerebrum proper but is a true tumor. In König's case, in which it looked very like a mass of cerebrum, it turned out to be telangiectatic glioma surrounding a very small quantity of cerebral tissue; in Berger's and Perier's cases it was a "cerebroma." In Picque's case, however, though the encephalocele consisted of a cystic dilatation of a portion of the occipital lobe and the cerebellum, the patient recovered, and, in M. Broca's opinion, would have been in a worse case if untreated. Sufficient time has not yet elapsed to permit the formation of a definite opinion as to the subsequent mental development of these children after excision. In Berger's case, in which a cerebroma was removed, the child, at the age of 18 months, appeared to be of "sufficient intelligence. As much cannot be hoped in cases such as Picque's, but the diagnosis of the contents of an encephalocele being impossible it is desirable to operate by excision in all cases. The age at which operation has been performed has varied from a few days to some months, but most of the children less than one month old have died. Strict antiseptic precautions should be observed, several of the deaths having been due to the wound becoming septic.—*Brit. Med. Jour.*

EUCALYPTUS OIL IN THE TREATMENT OF SCARLET FEVER.

The oil of eucalyptus globulus has been used in the treatment of scarlet fever, and favorable reports as to its value have recently appeared in *The Lancet* and elsewhere. A specific action as a curative agent has been claimed for it in some quarters. I would wish to place on brief record my own experience with this drug. Amongst a total of 305 cases of scarlet fever dealt with in this Hospital during the year 1890, forty-seven were treated with eucalyptus oil. Forty-four of these cases were consecutive in order of admission, and took the remedy internally (from two minims to five minims, according to age), administered in mucilage and water, every four hours, for periods of two weeks and upwards from the day of admission. In a certain proportion the oil was also used either in spray or as a lotion with water to cases presenting severe throat symptoms; and the lotion form was also employed to irrigate the nostrils and naso pharynx, where the disease had implicated these parts, giving rise to the intractable and deadly "nasal coryza" of scarlatina. In the result there occurred amongst these so-treated cases four deaths, and in no fewer than twenty cases the various complications or sequelæ native to this protean disease arose, including of the severer forms acute nephritis (five cases), multiple pyæmic abscesses (one case), cervical cellulitis (several cases), "rheumatism," pericarditis, and endocarditis. Albumen was found in the urine in sixteen cases. This mortality and complication rate is above rather than below that for all cases during the year. The only definite result noted from its internal administration in these cases was that the mixture caused vomiting in several children. Special stress has been laid upon its efficacy in improving the ulcerated or otherwise diseased throat conditions present in scarlet fever. In these cases it displayed no advantage beyond that due to the lotion form in which it was used, at least equally obtainable from other remedies in use here, and most noteworthy as bearing on this point, are two cases in the series in which, during its use, secondary ulceration, the so-called "diphtheritic ulceration" of scarlet fever, spreading forward from the palatal arches, invaded the hitherto healthy tissues. It was used both in lotion form and mixed with olive oil as a dressing to wounds and abscesses, and in this shape formed a fragrant

and unirritating substitute for carbolic acid. Its efficacy as a deodorant is undoubted. It was not smeared in any greasy preparation over the skin of any of these cases. This is always an unclean and unwholesome proceeding, and should not be adopted.

The conclusion arrived at from a consideration of these cases with regard to the value of eucalyptus oil in the treatment of scarlet fever is that, as a curative agent, it possesses no value, that it neither mitigates the severity nor modifies the course of the disease, that it fails to prevent serious complications and sequelæ arising in due course, and that as an auxiliary to the ordinary methods of treatment it possesses no obvious advantages. Yours faithfully,

DR. C. KNOX BOND, in the *Lancet*.

HYGIENE.

EARLY RECOGNITION OF TURERCULOSIS IN CATTLE.

A most remarkable observation has recently been made by M. Léon Mandereau, of Besançon, which if corroborated must alter very considerably our ideas on the subject of the distribution of the tubercle bacillus in generalized and local tuberculosis. This observer removed from the eyes of cattle that had succumbed to tuberculosis a drop of the aqueous humor, stained it according to Ehrlich's method, and found that the characteristic tubercle bacilli were present sometimes in small, but always in sufficient numbers to be readily identified. This opened up the way for the early diagnosis of tubercle, and M. Mandereau made careful examination of more than a score of animals suffering from tuberculosis in various stages. As he expected, he found the bacillus in the aqueous humor in all cases where the condition was generalized; but, more remarkable still, he found them even in those cases where the disease was confined to the lungs and pleura, and even when it was present only in the liver. This being the case, the diagnosis of tuberculosis could be made comparatively easy during life. This observation is so startling that much hesitation must be felt in accepting it; though made in perfectly good faith, it may be nullified by some undetected fallacy; and until it has been shown that all sources of fallacy were eliminated, it will be well to suspend final judgment. Should it prove to be true, it would be difficult to understand how Cohnheim and Salomonsen's experiments on the production of intra-ocular tuberculosis are to be explained, if tubercle bacilli in the anterior chamber, when introduced naturally along the lymphatics, do not give rise to any marked symptoms of tuberculosis. Of course, here it may be argued that a wound of tissues was produced, and that the conditions are therefore not the same. Another point for consideration is that, if these observations be correct, we shall have to revise all our notions as to the presence of tubercle bacilli in the blood and lymphatics of the system generally, even in cases of localized tuberculosis—conditions in which it has been held that tubercle bacilli were localized not only in their action, but also in their distribution. If the wound theory is to hold good at all, we should expect to find that after puncture of the cornea for the removal of the fluid, the tubercle nodules should make their appearance in the eye; and if these nodules do not occur, it is certainly presumptive evidence that tubercle bacilli are not there. Of course upon such a point as this depends the possibility of the application of the method, even if other observers are able to substantiate M. Mandereau's observations. It is not now necessary to consider this question as regards the human subject, except in those cases of acute general tuberculosis which frequently are indistinguishable from enteric fever or certain forms of pneumonia; in such cases it might be valuable, but to the veterinary surgeons, who in their examination of cattle have to contend with numerous, and up to the present almost insuperable, difficulties, it would be of great value.—*Brit. Med. Jour.*

A SIMPLE REGIMEN IN OBESITY.

The *Journal de la Santé* attributes to a medical officer of the French army the latest "cure" for obesity, which is strangely simple in its carrying out. The form of diet was simply a restriction to one dish at each meal, irrespective of what that dish might be, and no matter whether the quantity consumed was greater or smaller, it was made to satisfy the desire of food to the full at each meal. No supplementary dishes, such as soups, deserts or condiments were allowed; one single dish, and that taken plain, was found to satisfy the appetite much sooner than a variety of dishes, even if the quantity was apparently smaller and on almost an abstemious scale. This regimen was employed also in the case of a lady whose embonpoint threatened too rapid increase, with good results and without any discomfort in the observance of the restrictions. In fact, in one or two instances the reduction of cor-

pulence has seemed to go on rather too rapidly, and it has been deemed best to take means for restoration, in a measure, of that which has been lost. Under this system, as under most others, the excessive imbibition of liquids has to be forbidden, care being taken not to enforce the abstinence from water, especially, to the point where symptoms of circulatory depression arise from insufficiency of volume of blood in the vessels. —*Annals Hygiene.*

MEDICAL CHEMISTRY.

INCOMPATIBILITY OF COCAINE AND BROMIDE OF SODIUM.

In *La Pratique Médicale* for June 19, 1891, it is stated by M. L. Racine that having to prepare a solution of bromide of sodium and hydrochlorate of cocaine, on dissolving these substances in water and mixing them a grumous precipitate was formed, which gradually rose to the surface of the liquid. It seems that this precipitate is actually the cocaine, which is thrown out of solution, and the dangers of such a mixture are self-evident, for the cocaine floating on the top of the mixture would be given in a larger dose than was intended.

PHARMACEUTICAL PROGRESS.

TEST PAPERS.— E. Dieterich made a serious of test papers by impregnating filtering paper with solutions (1:250) of the following salts; Potassium ferrocyanide, this will indicate one part ferric chloride in 25,000 parts of water and one part copper sulphate in 2,000 parts of water; potassium ferri-cyanide, which will indicate one part of ferrous sulphate in 40,000 parts of water; potassium sulphocyanate will react with ferric chloride 1:5000; potassium iodide will indicate lead acetate 1:500, bismuth nitrate 1:7000 and silver nitrate 1:1000; potassium chromate will serve to detect lead acetate 1:2000 and silver nitrate 1:3000; zinc sulphide (made by coatingfiltering paper with freshly precipitated and thoroughly washed zinc sulphide suspended in water,) this will react with solutions containing a copper sulphate 1:15,000, lead acetate 1:15,000, bismuth nitrate 1:7000, silver nitrate 1:8000 and mercuric chloride 1:1200. Starch paper can be made to indicate one part iodine in 25,000 parts water; potassium iodide paper one part chlorine in 30,000 parts water; litmus paper was found to be more delicate and reliable than lacmoid paper.—*Pharm. Centralhalle*, 1891, 314.

NEW ALKALOID FROM SEEDS OF CONIUM.

The highest boiling portions of crude coniine contain a new base, which can be separated by repeated fractional distillations in vacuum and subsequent crystallization. It crystallizes in needles melting at 98°, and dissolves readily in alcohol, ether, and chloroform; it boils at 230°–233°, and has the composition $C_8H_{17}N.O$. It is therefore isometric with conhydrine, and the name *pseudo-conhydrine* has been suggested by Ladenburg, who has examined the alkaloid. —*Chem. Zeitung.*

NEWS AND MISCELLANY.

AMERICAN SURGICAL ASSOCIATION.

Programme of the Annual Meeting to be held in the Main Hall, Grand Army Building, 1412 and 1414 Pennsylvania Avenue, Washington, D. C., September 22, 23, 24, and 25, 1891.

September 22—Tuesday. *Session at 10 A. M.*

Roll Call.

President's Address.

Executive Session.

I. Present status of brain surgery. By Dr. D. Hayes Agnew, of Philadelphia. Abstract: Observations and results of Philadelphia surgeons in cases of epilepsy, traumatic and Jacksonian; abscess; hemorrhage; hydrocephalus; microcephalus; cephalalgia and tumors. Discussion by Mr. John Chiene, of Edinburg, Scotland, Dr. W. W. Keen, of Philadelphia, Pa., Dr. C. B. Nancrede, of Ann Arbor, Mich., Dr. Roswell Park, of Buffalo, N. Y.

II. Report of the Committee on the results which should be considered as satisfactory, of treatment of fractures of the shaft of the femur. By Dr. Stephen Smith, of New York.

Afternoon 3 o'clock.

The Association meets with the Congress in the main hall of the Grand Army Building. Subject: Conditions underlying the infection of wounds, including a discussion of disinfection with reference to treatment of wounds; of the relation of bacteria to suppuration; of the resistance of tissues to the multiplication of bacteria; and of the effects of antiseptic agents on wounds.

September 23.—Wednesday. *Session at 10 A. M.*

III.—Aseptic and antiseptic details in operative surgery, by Dr. A. G. Gerster, of New York.

Abstract:—1. Personal cleanliness and the cleaning of the field of operation are to be accomplished by mechanical procedures rather than disinfectants; soap and brush versus chemicals; brushes hot-beds of infection; their cleansing by boiling.

2. Dressing materials to be sterilized by steam; advantages of this plan.

3. Instruments to be sterilized by boiling in soda solution to prevent rusting.

4. Sponges, their cleansing, preservation, substitutes and use.

5. Technique of operating; advantages of employing few instruments, sponges and assistants; clean dissection, that is, avoidance of tearing and bruising of tissue; careful hæmostasis; no irrigation except where a special indication arises in the shape of existing or accidental contamination by fæces, urine or extraneous filth (as for instance in compound fractures.)

6. Drainage by tubes often unnecessary; its substitutes; where the tubes are indispensable.

7. Dressing, their manner of application and reason of efficiency; *a*, moist; *b*, dry absorbent dressing; *c*, sealing of wound by collodion.

8. In combating septic morbid processes, mechanical measures, such as incision, drainage and irrigating, of more importance than the employment of chemicals.

Discussion to be opened by Dr. Robert F. Weir, of New York, Dr. J. Collins Warren, of Boston, Mass., Dr. J. William White, of Philadelphia, Pa., Dr. Joseph Ransohoff, of Cincinnati, Ohio.

IV.—Surgical treatment of injuries and diseases of the vertebral column, by Dr. J. William White, of Philadelphia, Pa.

Abstract:—*A.* Congenital deformities—spina bifida; review of operative methods.

B. Tuberculosis of the spine. 1. Indications for operative interference. 2. Cases in which the focus of bony disease may be removed. 3. Relief of paralysis in spinal caries after pointing of a psoas or iliac abscess. 4. Paralysis in Pott's disease generally the result of an external pachymeningitis. 5. Pus to be evacuated whenever accessible; treatment by extension process plaster jacket; resection. 6. In caries of portion of the arches with paraplegia, we should almost always operate. 7. Exposure of cord, if bodies of lumbar vertebræ are affected, to relieve pressure and remove diseased bone. 8. Where compression of cord is thought to be due to anterior pachymeningitis, an operation can rarely liberate pressure.

C. Neoplasms. Amenable to operative interference.

D. Traumatism. 1. Some objections urged against operative interference in spinal traumatism unsupported by clinical facts; others largely due to well-founded dread of: *a.* shock; *b.* consecutive inflammation. 2. Recent results of operative interference encouraging. 3. Operation contra-indicated where disorganization of cord is caused by a severe crushing force.

Discussion: Dr. Maurice H. Richardson, of Boston, Mass., Dr. H. H. Mudd, of St. Louis, Mo., Dr. John B. Roberts, of Philadelphia, Pa., Dr. Charles B. Porter, of Boston, Mass., Dr. Robert Abbe, of New York, Dr. W. W. Keen, of Philadelphia.

V. On retro-peritoneal abdominal tumors, and especially those involving the kidney. By Dr. A. Vander Veer, of Albany, N. Y.

Abstract: Tumors—retro-peritoneal in their origion, sources and character; anatomical relations; from retro-peritoneal connective tissue and lymphatic glands; from the supra-renal capsule of the kidney; they may be present anteriorly between the folds of the mesentery or displace the viscera *en masse*, or posteriorly in the dorsal or lumbar regions; they may be benignant or malignant, cystoma, fibroma, myxoma, sarcoma or mixed growths. Gross and minute anatomy. Diagnosis: Difficulties: Indirect by exclusion, from tumors of the viscera, is often impossible. Use of aspirator. Prognosis: Rapid growth is evidence either of primary malignancy or secondary degeneration and infiltration. Operative treatment has not been followed by encouraging results. Treatment: In what cases, if not all, shall operative treatment be undertaken? Difficulties attending the operation. Intimate connection with peritoneum, the viscera and great vessels. Résumé.

Discussion: Mr. Reginald Harrison, of London, England, Dr. Robert Abbe, of New York, Dr. William T. Bull, of New York, Dr. Frederick E. Lange, of New York.

Afternoon, 3 o'clock.

The Association meets with the Congress in the Main Hall of the Grand Army Building.

Subject: The late manifestation of syphilis.

September 24—Thursday. *Executive Session at 10 A. M.*

VI. Recurrence of cancer of the breast, by Dr. Frederick S. Dennis, of New York.

Abstract:—In a study of the cases of carcinoma of the breast only those cases will be utilized in which a thorough microscopical examination has been made by a well-recog-

nized pathologist; all other cases are to be excluded as worthless. The recurrence of carcinoma in the breast is influenced by: 1. The period of time from first appearance of the growth to the date of the operation. 2. The extent to which infiltration has taken place by any one, or all, of the three well-recognized ways of dissemination. 3. The radical character of the operation itself. 4. The histological character of the carcinoma itself. 5. The appearance simultaneously in both breasts. 6. The personal factors of the individual, such as age, sex, marriage, fecundity, sterility, pregnancy, traumatism, heredity, menstruation, metastasis, mental condition, locality, etc.

Discussion: Mr. Thomas Bryant, of London, England, Dr. Hunter McGuire, of Richmond, Va., Dr. Lewis S. Pilcher, of Brooklyn, N. Y., Dr. D. Hayes Agnew, of Philadelphia., Pa., Dr. L. McLane Tiffany, of Baltimore, Md.

VII. The treatment of tuberculosis of bones and joints by parenchymatous and intra-articular injections, by Dr. Nicholas Senn, of Milwaukee, Wis.

Abstract: Introduction. 1. Tincture of iodine. 2. Carbolic acid. 3. Arsenious acid. 4. Corrosive sublimate. 5. Phosphate of lime. 6. Balsam Peru. 7. Camphorated naphthol. 8. Iodoform; experimental studies; clinical results; immediate and remote dangers; action of on tubercular tissue; indications; technique.

Discussion: Dr. Lewis A. Stimson, of New York, Dr. John Ashhurst, Jr., of Philadelphia, Pa., Dr. Frederick E. Lange, of New York, Dr. A. G. Gerster, of New York, Dr. A. T. Cabot, of Boston, Mass., Dr. D. D. Bramble, of Cincinnati, O.

Afternoon, 3 o'clock.

The Association meets with the Congress in the Main Hall of the Grand Army Building.

Subject: Fibroid processes (chronic interstitial inflammation, scleroses); their pathology and etiolygy, with special reference to the influence of diathesis and heredity.

September 25—Friday. *Executive Session at 10.00 A. M.*

VII. Treatment of fractures involving the elbow joint. By Dr. Lewis A. Stimson, of New York. *Abstract*: 1. Causes of limitation of motion after recovery; *a*, changes in the relation of the parts of the joint; *b*, overgrowth of bone; *c*, peri-articular. 2. Causes of deformity; treatment; reduction; maintenance—elbow flexed, elbow extended; after treatment.

Discussion: Mr. Arthur Edward Durham, of London, England, Dr. D. Hayes Agnew, of Philadelphia, Pa., Dr. N. P. Danbridge, of Cincinnati, Ohio, Dr. R. A. Kinloch, of Charleston, S. C., Dr. D. W. Yandell, of Louisville, Ky., Dr. Stephen Smith, of New York City, Dr. E. M. Moore, of Rochester, N. Y., Dr. James McCann, of Pittsburg, Pa. In addition to the above the following papers are offered and will be read as opportunity offers at the end of each day's programme:

1. Fractures involving upper third of femur, exclusive of neck, by Dr. Oscar H. Allis, of Philadelphia, Pa.

Abstract: 1. The infrequency renders it improbable that any single observer can speak authoritatively upon the subject. 2. Pathology. A study of the deformity as presented in pathological museums; its uniformity suggests a special agency for its production; an agency suggested at variance with the usually accepted one. 3. Permanent lameness or weakness in the limb not the result of insufficient bone repair; an inquiry into its cause. 4. Deformity in the upper compared with that in the middle and lower thirds. 5. Treatment; inquiry into the defects of prevailing methods; treatment suggested. 6. Faulty professional standard of what constitutes a good cure. 7. Appeal to surgeons for a thorough reopening of this important subject.

2. Thoracic surgery, by Dr. De Forest Willard, of Philadelphia, Pa.

Abstract: 1. Wounds and injuries of thorax. 2. Tumors of the thorax. 3. Conditions of disease. 4. Pus accumulations.

3. A case of diffuse hypertrophy of the breasts, with photographs. By Dr. C. B. Porter, of Boston, Mass.

4. Fractures of the bones which form the elbow-joint and their treatment. By. Dr. Levi C. Lane, of San Francisco, Cal.

5. Old unreduced luxations of elbow. By Dr. Lewis A. Stimson, of New York.

6. The study of a case of hemiplegia with aphasia, following ligature of common carotid artery. By Dr. J. Ewing Mears, of Philadelphia, Pa.

7. Investigation of pistol shot wounds of the skull, and their treatment. By Dr. E. H. Bradford, Boston, Mass.

8. The result of some experiments in the filling of cavities in bones following operations for caries. By Dr. E. H. Bradford, Boston, Mass.

The time for discussion will be limited to ten minutes for each speaker.

Members of the Medical Profession are cordially invited to attend the meetings of the Association, except when it is in executive session.